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Application Number	09/659,693
Filing Date	09/11/2000
First Named Inventor	Sehat SUTARDJA
Group Art Unit	2644
Examiner Name	Andrew C. Flanders
Attorney Docket Number	MP0062

Total number of pages in this submission including transmittal	103

ENCLOSURES *(check all that apply)*

- [✔] Fee Transmittal Form
  - [✔] with Credit Card Authorization
- [ ] Amendment / Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53

- [ ] Assignment Papers (for an Application)
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD

- [ ] After Allowance Communication to TC
- [✔] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to Group
- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) (identify below):

REMARKS Brief for Appellant with attachment

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	KATTEN MUCHIN ROSENMAN, LLP		
Signature	*Andrew J. Bateman* (signature)		
Printed Name	Andrew J. Bateman		
Reg. No.	45,573	Date:	07/05/2005

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FEE TRANSMITTAL
for FY 2005
Effective 10/01/2005. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($) 500.00

Complete if Known

Application Number	09/659,693
Filing Date	09/11/2000
First Named Inventor	Sehat SUTARDJA
Examiner Name	Andrew Flanders
Art Unit	2644
Attorney Docket No.	MP0062

METHOD OF PAYMENT (check all that apply)

☐ Check ☑ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account	50-1710
Account Name	KATTEN MUCHIN ZAVIS ROSENMAN

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☑ Credit any overpayments

☑ **Charge above Deposit Account with any additional fees necessary UNDER 37 CFR 1.16 AND/OR 1.17 to maintain pendency of this application.**

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code ($)	Small Entity Fee Code ($)	Description	Fee Paid
1001 300	2001 150	Utility Filing Fee	
1111 500	2111 250	Utility Search Fee	
1311 200	2311 100	Patent Examination Fee	

SUBTOTAL (1)	($) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee	Fee Paid
Total Claims	___ - 20** = ___	X 50.00 =	
Independent	___ - 3** = ___	X 200.00 =	
Multiple Dependent		360.00 =	

Large Entity Fee Code ($)	Small Entity Fee Code ($)	Description
1202 50	2202 25	Claims in excess of 20
1201 200	2201 100	Independent claims in excess of 3
1203 360	2203 180	Multiple dependent claim, if not paid
1204 200	2204 100	** Reissue independent claims over original patent
1205 50	2205 25	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)	($) 0.00

** or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code $	Small Entity Fee Code $	Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for *ex parte* reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 120	2251 60	Extension for reply within first month	
1252 450	2252 225	Extension for reply within second month	
1253 1,020	2253 510	Extension for reply within third month	
1254 1,590	2254 795	Extension for reply within fourth month	
1255 2,160	2255 1,080	Extension for reply within fifth month	
1401 500	2401 250	Notice of Appeal	
1402 500	2402 250	Filing a brief in support of an appeal	500.00
1403 1,000	2403 500	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 500	2452 250	Petition to revive - unavoidable (1.17(l))	
1453 1,500	2453 750	Petition to revive - unintentional (1.17(m))	
1501 1,400	2501 700	Utility issue fee (or reissue)	
1502 800	2502 400	Design issue fee	
1503 1,100	2503 550	Plant issue fee	
1460 130	1460 130	Petitions to the Directgor	
1807 50	1807 50	Processing fee - provisional app (1.17(q))	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 790	2809 395	Filing a submission after final rejection (1.129(a))	
1814 130	2814 65	Statutory Disclaimer	
1801 790	2801 395	Request for Continued Examination (RCE)	
1802 900	1802 900	Req for expedited examination - Design App	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)	($) 500.00

SUBMITTED BY

Name: Andrew J. Bateman	Registration No.: 45,573	Telephone: (202) 625-3547

Signature: _____ Date: 07/05/2005

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)
	) Examiner: Andrew C. FLANDERS
Sehat SUTARDJA	)
	) Group Art Unit: 2644
Application No.: 09/659,693	)
	) Appeal No. _____
Filed: September 11, 2000	)
	) Confirmation No.: 5047
For: METHOD AND APPARATUS FOR	)
RECORDING AND	)
REPRODUCING DIGITAL DATA	) Date: July 5, 2005

BRIEF FOR APPELLANT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal is from the decision of the Patent Examiner dated February 23, 2005,

finally rejecting claims 1-23, 25, 26, 28-48, 95-112 and 169-172, which are reproduced as an

Appendix to this Appeal Brief.

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Customer No.: 28285

TABLE OF CONTENTS

Customer No.: 28285

I.   Real Party in Interest

    The entire interest in the present application, and the invention to which it is directed, is assigned to Marvell International Ltd., as recorded in the Patent and Trademark Office at Reel 011110, Frame 0596, Reel 011113, Frame 0371, and Reel 011560, Frame 0904.

II.   Related Appeals and Interferences

    The Appellant's legal representative and assignee do not know of any other appeals or interferences which will directly affect, or be directly affected by, or have a bearing on the Board's decision in this Appeal.

III.   Status of Claims

    The present application contains claims 1-23, 25, 26, 28-48, 95-112 and 169-172, all of which are currently pending. Claim 24, 27, 49-94 and 113-168 have been canceled. Claims 1-23, 25, 26, 28-48, 95-112 and 169-172 form the basis for this Appeal.

Customer No.: 28285

IV.   Status of Amendments

An amendment was filed on June 8, 2005, subsequent to final rejection and prior to the filing of the present Appeal Brief. In the amendment, the election of the claims of Group I (i.e., claims 1-23, 25, 26, 28-48, 95-112 and 169-172) for prosecution was affirmed. Accordingly, claims 24, 27 and 113-168 were canceled. Additionally, terminal disclaimers were filed to overcome provisional rejections under alleged obviousness-type double patenting of claims 1-23, 25, 26, 28-48, 95-112 and 169-172 over claims 1-10 of co-pending U.S. Patent Application Serial No. 10/184,302, over claims 1-5, 20-23, 38-41, 56-59 and 74-85 of co-pending U.S. Patent Application Serial No. 10/184,299, and over claims 1-10, 26-34 and 50-53 of co-pending U.S. Patent Application Serial No. 10/184,505.

To the knowledge of Appellant, the amendment has not been acted upon by the Examiner.

V.   Summary of the Invention

The present invention relates generally to an apparatus for recording and reproducing digital data. More particularly, the present invention relates to a media player/recorder having a miniature hard disk drive for storing digital data. [*see* present application, page 1, lines 12-14]

One disadvantage of a conventional MP3 player is that the amount of music data stored in the MP3 player is limited by the amount of flash memory installed in the MP3 player. Flash memory is expensive which is inapposite to such a portable consumer electronic device. Additionally, by incorporating a large amount of flash memory, there is an increase in required energy to supply the MP3 player. This results in a shorter operating time or and increase in weight for additional batteries to supply this increase in required energy. This is also disadvantageous for a portable device. Moreover, the decoding algorithm is either stored in the ROM or flash memory. When the decoding algorithm is stored in read

only memory (ROM), the ROM needs to be changed to update, revise or otherwise change the decoding algorithm. Changing the ROM generally requires that the entire product be sent back to the manufacturer to have the ROM replaced, which can be difficult, impractical and highly expensive. Additionally, a larger ROM is required if multiple algorithms are stored therein. Similarly, if multiple algorithms are stored in flash memory, a larger flash memory is required, which increases cost and energy consumption. [*see* present application, page 2. lines 17-29]

As illustrated in Figures 2 and 3 of the present application, exemplary embodiments of the present invention are directed to a media player/recorder. As recited in independent claim 1, the media player/recorder includes a storage device (e.g., disk drive 230) to store compressed media data. [*see* present application, page 5, lines 25-29] The media player/recorder includes a programmable processor (e.g., processor 300) that is programmed to *both* retrieve and decompress the media data. [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] The media player/recorder includes a memory (e.g., memory 202) to store the data retrieved by the processor. [*see* present application, page 6, lines 3-16] The media player/recorder also includes an output circuit (e.g., output circuit 216) to output the decompressed media data from the processor. [*see* present application, page 9, line 33 – page 10, line 2] By combining the functionality of *both* the retrieval and the decompression of the media data into a single device (the programmable processor), an apparatus including the media/player recorder can be fabricated at lower cost and have lower energy consumption. [*see* present application, page 8, lines 1-2]

According to an exemplary embodiment, the programmable processor can comprise a digital signal processor (e.g., DSP/MPU 343) to *both* control the storage device and to decompress the media. By using only one DSP rather than two (or more) to both control an associated storage device and to decompress media data, the cost of fabrication and the amount of energy consumption of any device incorporating such can be reduced. [*see* present application, page 8, lines 1-2]

According to a further exemplary embodiment, the storage device can store a process for decompressing compressed media data for a selected compression format. [*see* present application, page 7, 17-22] Storing the decompression algorithms on the storage device

-3-

advantageously minimizes the size of ROM required for the device and its energy consumption. [*see* present application, page 7, lines 19-20] Additionally, such a feature allows future decompression (and compression) formats to be easily implemented for the media player/recorder. [*see* present application, page 7, lines 21-22] Furthermore, the digital signal processor of the media player/recorder can determine the compression format and select and retrieve an appropriate process for decompressing the media data from the storage device. [*see* present application, page 6, lines 22-25]

According to an additional exemplary embodiment, the digital signal processor can comprise an encoder to compress received media data. [*see* present application, page 9, lines 16-20] Thus, the digital signal processor can be operable to compress media data, *and* decompress media data, *and* control the storage device, *and* retrieve media data stored in the storage device. As indicated previously, using a single DSP to perform all of these functions saves on fabrication costs and energy consumption.

More particularly, conventional media players include separate processors for performing decoding and hard disk controlling. Processing is generally done sequentially, with little overlap. For example, a first processor can control the reading of a block of data from a hard disk. Once read, the first processor and hard disk are shut down. A second processor then can perform the decoding of the data. Thus, one processor will be working while the other is not, as they are run at alternate times. In addition, the use of multiple processors requires greater energy, a larger die space (for the multiple chips on a die), and, therefore, increased manufacturing costs. Furthermore, each processor may require the payment of licensing fees to the third-party manufacturer for use of that processor, so that the use of more processors would require the payment of more licensing fees.

In contrast, exemplary embodiments of the present invention use a single processor or digital signal processor to perform multiple functions. Using a single processor or digital signal processor results in a reduction in energy consumption and utilization of space (since there is a fewer number of chips used), a corresponding decrease in manufacturing costs, and a potential reduction in licensing fees.

As recited in independent claim 11, a media player/recorder includes a programmable processor (e.g., processor 300) that includes a digital signal processor (e.g., DSP/MPU 343)

that uses the *same* circuit to *both* control a storage device (e.g., disk drive 230) and to decompress the media data stored in a memory (e.g., memory 202). [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] As noted previously, the use of a single DSP to both control a storage device and to decompress media data saves on the cost of fabrication and the amount of energy consumption of any device incorporating such. [*see* present application, page 8, lines 1-2]

Independent claim 20 is directed to an integrated circuit to control a media player/recorder. The integrated circuit includes a storage controller (e.g., hard disk controller 342), a read channel (e.g., read channel 341) and a digital signal processor (e.g., DSP/MPU 343). The digital signal processor controls the storage device, *and* transfers compressed media data read by the read channel to the memory, *and* decompresses the media data stored in the memory, and converts the decompressed media data to an analog signal. [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33] Again, by using a single DSP, rather than two or more, the cost of fabrication and the amount of energy consumption can be reduced.

Independent claim 22 is directed to a method of playing and recording media data from a media player/recorder. According to the method, compressed media data stored on a storage device is retrieved using a circuit (e.g., processor 300). The compress media data is decompressed using the *same* circuit (e.g., processor 300). [*see* present application, page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33]

Independent claim 171 is directed to a method of playing and recording media data from a media player/recorder. According to the method, media data is stored. The media data comprises a plurality of selections. First portions of at least one of the plurality of selections of the media data are transferred to a memory (e.g., memory 202). The first portions of the at least one of the plurality of sections of the media data are output from the memory (e.g., memory 202). According to an exemplary embodiment, when a user selects a particular one of the plurality of selections, a remaining portion of the particular one of the plurality of selections is retrieved, and then the portion and remaining portion of the particular one of the plurality of selections are output. [*see* present application, page 11, line 29 – page 12, line 13]

Customer No.: 28285

Independent claim 28 of the present application recites the features of "storage means for storing compressed media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 28 recites the feature of "programmable processing means programmed for retrieving the media data stored in said storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a programmable processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 28 recites the feature of "memory means for storing the media data retrieved by said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a memory, such as, for example, memory 202 illustrated in Figures 2-4 and described at page 6, lines 3-16.

Independent claim 28 recites the feature of "output means for outputting the decompressed media data from said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

Dependent claim 30 recites the feature of "interface means responsive to said processing means for communicating with an external device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an interface circuit, such as, for example, interface circuit 206 illustrated in Figure 2-4 and described at page 5, lines 21-25.

Dependent claim 31 recites that the processing means comprises "digital signal processing means for controlling said storage means and for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a digital

signal processor (DSP), such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Dependent claim 32 recites that the processing means comprises a single integrated circuit comprising the feature of "storage controller means responsive to said digital signal processing means for controlling said storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 32 recites that the processing means comprises a single integrated circuit comprising the feature of "read channel means for reading data from said storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 33 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Dependent claim 37 recites the feature of "input means for receiving media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an input circuit, such as, for example, input 214 illustrated in Figures 2-4 and described at page 5, lines 30-33.

Independent claim 38 of the present application recites the features of "storage means for storing compressed media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 38 recites the feature of "processing means for retrieving the media data stored in said storage means." For purposes of illustration, the structure described

in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 28 recites the feature of "output means for outputting the decompressed media data from said processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

Independent claim 38 recites that the processing means comprises "digital signal processing means and uses the same circuit for controlling said storage means and for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a digital signal processor (DSP), such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Dependent claim 40 recites the feature of "interface means responsive to said processing means for communicating with an external device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an interface circuit, such as, for example, interface circuit 206 illustrated in Figure 2-4 and described at page 5, lines 21-25.

Dependent claim 41 recites that the processing means comprises a single integrated circuit comprising the feature of "storage controller means responsive to said digital signal processing means for controlling said storage device." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 41 recites that the processing means comprises a single integrated circuit comprising the feature of "read channel means for reading data from said storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as,

-8-

for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Dependent claim 42 recites that the digital signal processing means comprises "decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Dependent claim 46 recites the feature of "input means for receiving media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an input circuit, such as, for example, input 214 illustrated in Figures 2-4 and described at page 5, lines 30-33.

Independent claim 47 of the present application recites an integrated circuit for controlling a media player/recorder including the feature of "digital signal processing means for controlling the storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Independent claim 47 recites the feature of "storage controller means responsive to said digital signal processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed feature can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Independent claim 47 recites the feature of "read channel means . . . for reading the compressed media data from the storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9

Independent claim 47 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the

-9-

claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Independent claim 95 of the present application recites an integrated circuit for controlling a media player/recorder including the feature of "digital signal processing means for controlling the storage means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, DSP/MPU 343 illustrated in Figures 3 and 5 and described at page 7, lines 5-14.

Independent claim 95 recites the feature of "storage controller means responsive to said digital signal processing means." For purposes of illustration, the structure described in the specification as corresponding to the claimed feature can be shown as, for example, a storage controller, such as, for example, hard disk controller (HDC) 342 illustrated in Figures 3 and 5 and described at page 7, lines 5-9.

Independent claim 95 recites the feature of "read channel means . . . for reading the compressed media data from the storage means . . . ." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a read channel, such as, for example, read channel 341 illustrated in Figures 3 and 5 and described at page 7, lines 5-9

Independent claim 95 recites that the digital signal processing means comprises "a decoding means for decompressing the media data stored in said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a decoder, such as, for example, codec 348 illustrated in Figures 3 and 5 and described at page 7, lines 17-20 and page 9, lines 16-20.

Independent claim 170 of the present application recites the features of "storage means for storing media data." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a storage device, such as, for example, disk drive 230 illustrated in Figures 2-4 and described at page 5, lines 25-29.

Independent claim 170 recites the feature of "memory means for storing data." For purposes of illustration, the structure described in the specification as corresponding to the

claimed function can be shown as, for example, a memory, such as, for example, memory 202 illustrated in Figures 2-4 and described at page 6, lines 3-16.

Independent claim 170 recites the feature of "processing means for transferring first portions of at least one of the plurality of selections of the media data from said storage means to said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, a processor, such as, for example, processor 300 illustrated in Figure 2-4 and described at page 7, lines 14-17, page 8, lines 8-32 and page 9, lines 21-33.

Independent claim 170 recites the feature of "output means for outputting the first portions of the at least one of the plurality of sections of the media data from said memory means." For purposes of illustration, the structure described in the specification as corresponding to the claimed function can be shown as, for example, an output circuit, such as, for example, output circuit 216 illustrated in Figures 2-43 and described at page 9, line 33 to page 10, line 2.

VI.   Grounds of Rejection to be Reviewed on Appeal

The Final Office Action[1] presents three grounds of rejection for review in this Appeal:

1.   Claims 1-19, 28-46, 97-102 and 106-112 stand finally rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Huang et al. (U.S. Patent No. 6,119,091, hereinafter "Huang") in view of Dewhurst et al. (U.S. Patent Application Publication No. 2002/0019925, hereinafter "Dewhurst").

2.   Claims 20, 47 and 95 stand finally rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Huang.

3.   Claims 21-23, 25, 26, 48, 96, 103-105 and 169-172 stand finally rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Huang.

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1   For the convenience of the Board, given the length of the Final Office Action, accompanying the present Appeal Brief is an annotated copy of the Final Office Action in which line numbers have been added to allow convenient reference to passages in the Final Office Action. Additionally, particular statements made by the Patent Office in the Final Office Action have been highlighted to provide easier reference to those statements.

Customer No.: 28285

VII.   Arguments

A.   Summary of Arguments

For the convenience of the Board, a summary of Appellant's arguments in response to the aforementioned grounds of rejection is provided below. The following arguments are discussed in greater detail in Sections VII.B – VII.D.

1.   Rejection of Claims 1-19, 28-46, 97-102 and 106-112 Under 35 U.S.C. § 103(a) over Huang in view of Dewhurst

a.   Claims 1, 2, 3, 9, 11-13, 18, 28-30, 36, 38-40, 45, 97-102 and 106-112

These claims recite the feature of a programmable processor which is programmed to retrieve the media data stored in the storage device, wherein the processor is also programmed to decompress the media data stored in said memory. The combination of Huang and Dewhurst does not disclose or suggest the feature of a *programmable processor* that is programmed to *both* retrieve compressed media data *and* decompress the compressed media data. The Patent Office Acknowledges that Huang does not disclose a programmable processor. [*see* Final Office Action, page 5, line 10] Dewhurst discloses an FPGA. *Nowhere* does Dewhurst disclose or even suggest that the processing cells or the core array of the FPGA can be programmed to *both* retrieve compressed media data stored in a storage device *and* decompress the compressed media data.

b.   Claims 4, 5, 14, 31, 32 and 41.

These claims recite the feature that the processor comprises a digital signal processor to control the storage device and to decompress the media data stored in the memory. The combination of Huang and Dewhurst does not disclose or suggest the feature of a processor comprising a *digital signal processor* to *both* control the storage device *and* decompress the media data stored in the memory. Huang discloses that the multimedia decoder 228 "operates to decode the output of the error correction decoder 226 to produce digital audio signal and video signal" [Huang, column 5, lines 1-4], *not* the digital signal processor (DSP) 210. Dewhurst discloses an FPGA. *Nowhere* does Dewhurst disclose or even suggest the feature of a *digital signal processor* to *both* control a storage device *and* decompress the compressed media data.

c.   Claims 6, 15, 33 and 42.

These claims recite the feature that the digital signal processor comprises a decoder to decompress the media data stored in the memory. The combination of Huang and Dewhurst does not disclose or suggest such a feature. Huang discloses that the multimedia decoder 228 "operates to decode the output of the error correction decoder 226 to produce digital audio signal and video signal" [Huang, column 5, lines 1-4], *not* the DSP 210. Dewhurst discloses an FPGA. *Nowhere* does Dewhurst disclose or even suggest the feature of a digital signal processor comprising a decoder to decompress the media data stored in the memory.

d.   Claims 7, 16, 34 and 43.

These claims recite the feature that the storage device stores a process for decompressing compressed data for a selected compression format. The combination of Huang and Dewhurst does not disclose or suggest such a feature. In particular, the Patent Office acknowledges that Huang does not disclose or suggest such a feature. [*see* Final Office

-14-

Action, page 6, lines 19-20] The Patent Office also acknowledges that Dewhurst does not disclose or suggest such a feature. [*see* Final Office Action, page 6, lines 19-20]

e.   Claims 8, 17, 35 and 44.

These claims recite the feature that the digital signal processor determines a compression format of the media data stored in the memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format. The combination of Huang and Dewhurst does not disclose or suggest such a feature. In particular, the Patent Office acknowledges that Huang does not disclose or suggest such a feature. [*see* Final Office Action, page 7, lines 7-8] The Patent Office also acknowledges that Dewhurst does not disclose or suggest such a feature. [*see* Final Office Action, page 7, lines 7-8]

f.   Claims 10, 19, 37 and 46.

These claims recite the feature that the digital signal processor comprises an encoder to compress the received media data. The combination of Huang and Dewhurst does not disclose or suggest such a feature. Huang discloses that the multimedia decoder 228 "operates to provide compression of the digital audio and video signals" [Huang, column 3, lines 61-62], *not* the DSP 210. Dewhurst discloses an FPGA. *Nowhere* does Dewhurst disclose or even suggest the feature of a digital signal processor that comprises an encoder to compress received media data.

-15-

2.   Rejection of Claims 20, 47 and 95 Under 35 U.S.C. § 102(e) by
        Huang.

These claims recite an integrated circuit to control a media player/recorder, wherein the integrated circuit includes a digital signal processor, a storage controller, and a read channel. *Nowhere* does Huang disclose such an integrated circuit.

Additionally, these claims recite the feature that the digital signal processor transfers the compressed media data read by the read channel to the memory, and that the digital signal processor comprises a decoder to decompress the media data stored in the memory. *Nowhere* does Huang disclose the feature of a *single* digital signal processor that *both* transfers compressed media data read by the read channel to a memory *and* decompresses the media data stored in the memory. According to Huang, the DSP 210 "controls the drive motors 214 and uses the read head 220 to scan the multimedia disk 216 and produce a read signal." [Huang, column 4, lines 57-60] The multimedia decoder 228 "operates to decode the output of the error correction decoder 226 to produce digital audio signal and video signal." [Huang, column 5, lines 1-4]

3.   Rejection of Claims 21-23, 25, 26, 48, 96, 103-105 and 169-172 Under

         35 U.S.C. § 103(a) over Huang.

         a.   Claims 21, 25, 48, 96 and 103.

         These claims recite the features that the storage device stores a process for

decompressing compressed data for a selected compression format, wherein the digital signal

processor determines a compression format of the media data stored in the memory, wherein

the process for decompressing compressed data is retrieved from the storage device in

accordance with the determined compression format, and wherein said decoder decompresses

the media data in accordance with the retrieved process. Huang does not disclose or suggest

such features. In particular, the Patent Office acknowledges that Huang does not disclose or

suggest such features. [*see* Final Office Action, page 9, lines 1-3]

         b.   Claims 22, 23, 26, 104 and 105.

         These claims recite the steps of using a circuit to retrieve the compressed media data

stored on the storage device, and using the same circuit used to decompress the compressed

media data. *Nowhere* does Huang disclose or suggest a *single* circuit that *both* retrieves

compressed media data stored on a storage device *and* decompresses the compressed media

data. According to Huang, the DSP 210 "controls the drive motors 214 and uses the read

head 220 to scan the multimedia disk 216 and produce a read signal." [Huang, column 4,

lines 57-60] The multimedia decoder 228 "operates to decode the output of the error

correction decoder 226 to produce digital audio signal and video signal." [Huang, column 5,

lines 1-4]

c.   Claims 169-172.

These claims recite the feature of a processor to transfer first portions of at least one of the plurality of selections of the media data from the storage device to the memory. Huang does not disclose or suggest such a feature. In particular, the Patent Office acknowledges that Huang does not disclose or suggest such a feature. [*see* Final Office Action, page 11, lines 14-15]

-18-

B.   Rejection of Claims 1-19, 28-46, 97-102 and 106-112 Under 35 U.S.C.
        § 103(a) as Allegedly Being Unpatentable over Huang in View of Dewhurst.

1.   Claims 1, 2, 3, 9, 11-13, 18, 28-30, 36, 38-40, 45, 97-102 and 106-112.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of a ***programmable processor*** that is programmed to ***both*** retrieve compressed media data ***and*** decompress the compressed media data, as recited in independent claims 1, 11, 28 and 38 of the present application.

a.   The Huang Patent.

As understood by Appellant, Huang is directed to a DVD audio decoder that supports simple sound-effect generation. According to Huang, the audio decoder includes a direct access pulse code modulation (PCM) first-in-first-out buffer (FIFO) to support simple sound effect generation. In one embodiment, the audio decoder additionally includes an input buffer, a decoding module, and an output interface. The input buffer buffers incoming data frames for the decoding module to retrieve and convert to a sequence of decoded audio samples. The FIFO is configured to receive and buffer audio sound effect samples from a control component external to the audio decoder. The output interface is configurable to retrieve decoded audio samples from the decoding module and audio sound effect samples from the FIFO. Any retrieved audio sound effect samples are included in a digital audio output signal provided by the output interface. The digital audio output signal can be provided directly to a digital-to-analog converter for sound reproduction. [*see* Huang, Abstract]

Customer No.: 28285

b.   The Dewhurst Patent

As understood by Appellant, Dewhurst is directed to a field programmable processor that includes a regular array of processing elements, each of which is adapted to perform a fixed arithmetic function on packets of data. The processing elements are interconnected by an array of signal conductors extending adjacent the processing elements. Switching means are provided for selectively connecting the processing elements to the adjacent signal conductors so as to interconnect the processing elements. Program data representing desired processing element interconnections is stored, the switching means is controlled in accordance with the stored program data to achieve the desired processing element interconnections. The packets of data are transmitted between the interconnected processing elements. [*see* Dewhurst, Abstract]

c.   The Huang Patent Does Not Disclose or Suggest the Feature of a Programmable Processor Which is Programmed to Both Retrieve Compressed Media Data from a Storage Device and Decompress the Compressed Media Data, as Recited in Independent Claims 1, 11, 28 and 38 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose or suggest the feature of a *programmable processor* which is programmed to *both* retrieve compressed media data stored in a storage device *and* decompress the compressed media data, as recited in, for example, independent claim 1 of the present application.

For example, and as acknowledged by the Patent Office, "Huang does not disclose a programmable processor." [Final Office Action, page 5, line 10]

      d.   <u>The Dewhurst Patent Does Not Disclose or Suggest the Feature
of a Programmable Processor Which is Programmed to Both
Retrieve Compressed Media Data from a Storage Device and
Decompress the Compressed Media Data, as Recited in
Independent Claims 1, 11, 28 and 38 of the Present
Application.</u>

Contrary to the assertions of the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of a ***programmable processor*** which is programmed to ***both*** retrieve compressed media data stored in a storage device ***and*** decompress the compressed media data, as recited in, for example, independent claim 1 of the present application.

Dewhurst discloses a field programmable gate array (FPGA). However, *nowhere* does Dewhurst disclose or even suggest that the FPGA can be programmed to ***both*** retrieve compressed media data ***and*** decompress the compressed media data. Contrary to the assertions of the Patent Office, the FPGA disclosed by Dewhurst is programmed to arrange gates in the FPGA structure. According to Dewhurst,

> [e]very cell 9 in the core array 3 has inputs that are selectively enabled by multiplexers and that are connected directly to the outputs of neighboring processing cells 9 or to outputs of other cells 9 via a programmable interconnection network. Every processing cell 9 also has an output that is connected to an input multiplexer of near processing cells 9 and is connected to the programmable interconnection network through an output multiplexer. The two methods of programmable connection, direct local connections and the longer distance programmable interconnect network, enable the processing cells 9 to be interconnected as required so that the desired complex functions can be implemented. [Dewhurst, page 3, paragraph 0055]

Thus, Dewhurst discloses that the interconnections between the processing cells in the "core array 3" can be programmed as required so that the desired complex function can be implemented. [*see* Dewhurst, page 3, paragraph 0055] Dewhurst specifically discloses that the program data represents the desired processing element interconnections which controls multiplexers to achieve the desired processing element interconnections. Although each processing cell can be set up to perform a fixed arithmetic function, either multiplication (in a multiplier cell) or addition (in an accumulator cell), *nowhere* does Dewhurst disclose or even

-21-

suggest that the processing cells or the core array can be programmed to *both* retrieve compressed media data stored in a storage device *and* decompress the compressed media data.

For example, the FPGA disclosed by Dewhurst can be programmed such that its gates are arranged to process one or more input signals that it receives. However, Dewhurst does not disclose that the FPGA *retrieves* data, let alone compressed media data. As disclosed by Dewhurst, the FPGA merely operates in accordance with the data it *receives* on its respective inputs to perform some combination of addition and multiplication functions. In complete contrast to Dewhurst, Appellant's claimed programmable processor is programmed to *retrieve* compressed media data stored in a storage device and decompress the compressed media data. Although the FPGA disclosed by Dewhurst may be able to *receive* data from a storage device under the control of a controlling device, *nowhere* does Dewhurst disclose or even suggest that the FPGA can *retrieve* data stored in a storage device.

Additionally, a FPGA provides the ability to configure logic gates to perform a single function. However, once configured, the function performed by the FPGA does not change, nor can it be simply "switched" to perform another function. Thus, it is respectfully submitted that Dewhurst does not disclose or suggest that a FPGA can be configured to perform two different functions, let alone at the same time. It is respectfully submitted that to configure an FPGA to perform two different functions would be impractical. For example, the FPGA can be configured to perform a first function. After performing the first function, the FPGA would have to be reinitialized with a different configuration to perform the second function. Consequently, it is respectfully submitted that Dewhurst teaches away from a single processor that is programmed to perform two different functions at the same time.

Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

Customer No.: 28285

e.   Since the Combination of Huang and Dewhurst Does Not
Disclose or Suggest the Feature of a Programmable Processor
Which is Programmed to Both Retrieve Compressed Media
Data from a Storage Device and Decompress the Compressed
Media Data, as Recited in Independent Claims 1, 11, 28 and 38
of the Present Application, the Combination of Huang and
Dewhurst Does Not Render Independent Claims 1, 11, 28 and
38 Obvious.

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a *programmable processor* that is programmed to *both* retrieve compressed media data *and* decompress the compressed media data, it is respectfully submitted that the combination of Huang and Dewhurst does not render independent claim 1 unpatentable.

In addition, according to M.P.E.P. § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." [M.P.E.P. § 2143] In other words, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." [M.P.E.P. § 2143.01]

The Patent Office asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to take Huang's discrete digital elements and implement them on an FPGA as taught by Dewhurst. One would have been motivated to do so to make things smaller and more compact." [Final Office Action, page 5, lines 12-15]

First, it is respectfully submitted that the Patent Office has provided absolutely no support or foundation for the baseless and completely unfounded assertion that the FPGA disclosed by Dewhurst could be modified to support the discrete digital elements disclosed by Dewhurst. As previously discussed, each processing cell in the core array disclosed by Dewhurst can perform a fixed arithmetic function, either multiplication or addition. [*see*

-23-

Dewhurst, page 3, paragraphs 0054 and 0062] Thus, the processing cells can be interconnected to perform a mathematical function consisting of multiplication and addition operations. However, Huang discloses discrete components such as a DSP 210 that can perform functions such as controlling the read/write components of the system, or a read head 220 that can read stored data from a recordable multimedia disk, or channel control buffer 222 that can perform rate control. [*see* Huang, column 3, lines 46-50; column 4, lines 46-60] The Patent Office has offered absolutely no support or reasoning how one of ordinary skill in the art could modify the FPGA disclosed by Dewhurst with discrete digital elements disclosed by Huang, beyond merely a bald statement that it "could" be done. It is respectfully submitted that there is absolutely no teaching, suggestion, or motivation, either explicitly or implicitly, to modify the references in the manner suggested by the Patent Office.

In addition, it is respectfully submitted that there is absolutely no support or foundation for the baseless assertion that a skilled artisan would be motivated to modify the references "to make things smaller and more compact." It is respectfully noted the FPGA disclosed by Dewhurst requires not only the FPGA structure but also external programming structures to be able to configure the device. Those structures would also have to be accounted for in the "overall size" and "compactness" of the resulting combination device. With such attending structures, Appellant fails to find the Patent Office's "obvious" size and compactness motivation.

It is respectfully submitted that the Patent Office's stated motivation for combining Huang and Dewhurst is wholly and completely without support in either Huang or Dewhurst. It is respectfully submitted that the Patent Office has failed to provide support, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for the Patent Office's stated motivation. Rather, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness.

Rather, according to M.P.E.P. § 2142, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of

-24-

obviousness] must be reached on the basis of the facts gleaned from the prior art."
Furthermore, according to M.P.E.P. § 2143.01, "[t]he mere fact that references can be . . .
modified does not render the resultant combination obvious unless the prior art also suggests
the desirability of [such modification]." [citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430
(Fed. Cir. 1990)] It is respectfully submitted that the Patent Office's stated motivation for
combining Huang and Dewhurst is wholly and completely without support, either explicitly
or implicitly. It is respectfully submitted that the Patent Office's attempt to combine Huang
and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded
upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145]
Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore,
improper.

For at least the aforementioned reasons, it is respectfully submitted that the
combination of Huang and Dewhurst does not render the subject matter of independent claim
1 obvious.

Independent claims 11, 28 and 38 recites features similar to those discussed above
with regard to independent claim 1, and are, therefore, patentably distinguishable over the
combination of Huang and Dewhurst for at least those reasons stated above with regard to
independent claim 1.

Dependent claims 2, 3, 9, 12, 13, 18, 29, 30, 36, 39, 40, 45, 97-102 and 106-112
variously depend from independent claims 1, 11, 28 and 38, and are, therefore, patentably
distinguishable over the combination of Huang and Dewhurst for at least those reasons stated
above with regard to independent claims 1, 11, 28 and 38.

For at least the foregoing reasons, it is respectfully submitted that the combination of
Huang and Dewhurst does not render the subject matter of claims 1, 2, 3, 9, 11-13, 18, 28-30,
36, 38-40, 45, 97-102 and 106-112 unpatentable.

Hence, the subject matter of claims 1, 2, 3, 9, 11-13, 18, 28-30, 36, 38-40, 45, 97-102
and 106-112 is separately patentable for this reason.

2.   Claims 4, 5, 14, 31, 32 and 41.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of the processor comprising a ***digital signal processor*** to ***both*** control the storage device ***and*** decompress the media data stored in the memory, as recited in dependent claims 4, 5, 14, 31, 32 and 41 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of the Processor Comprising a Digital Signal Processor to Control the Storage Device and to Decompress the Media Data Stored in the Memory, as Recited in Dependent Claims 4, 5, 14, 31, 32 and 41 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose or suggest the feature of a ***digital signal processor*** to ***both*** control a storage device ***and*** decompress the compressed media data, as recited in, for example, dependent claim 4 of the present application.

As discussed previously, Huang discloses that DSP 210 serves multiple functions, including "filtering operations for write and read signals, and it acts as a controller for the read/write components of the system." [Huang, column 4, lines 46-28] Additionally, the DSP 210 "controls the drive motors 214 and the record head 218 via the power amplifier 212 to record the modulated signal on the multimedia disk 216." [Huang, column 4, lines 55-57] The DSP 210 "also controls the drive motors 214 and uses the read head 220 to scan the multimedia disk 216 and produce a read signal." [Huang, column 4, lines 57-60] It is respectfully submitted that *nowhere* does Huang disclose a ***digital signal processor*** that ***both*** controls a storage device ***and*** decompresses the media data stored in the memory.

In both the functional block diagram illustrated in Figure 2, including *separate* Media Decoder 228 and DSP 210, and the embodiment illustrated in Figure 3, including *separate* decoder 314/316, controller 302, and SPU 312, Huang discloses multiple, separate discrete

-26-

devices for performing retrieval and decompressing operations. Huang further discloses that the *multimedia decoder* 228 "operates to decode the output of the error correction decoder 226 to produce *digital* audio signal and video signal." [Huang, column 5, lines 1-4 (emphasis added)]

Thus, it is respectfully submitted that Huang does *not* disclose that the DSP 210 performs any type of decompression of compressed media data.

> b.   The Dewhurst Patent Does Not Disclose or Suggest the Feature of the Processor Comprising a Digital Signal Processor to Control the Storage Device and to Decompress the Media Data Stored in the Memory, as Recited in Dependent Claims 4, 5, 14, 31, 32 and 41 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of a ***digital signal processor*** to ***both*** control a storage device ***and*** decompress the compressed media data, as recited in, for example, dependent claim 4 of the present application.

As discussed previously, Dewhurst discloses an FPGA in which the interconnections between the processing cells in the FPGA can be programmed as required so that the desired complex functions can be implemented. [*see* Dewhurst, page 3, paragraph 0055] Although each processing cell can be set up to perform a fixed arithmetic function, either multiplication (in a multiplier cell) or addition (in an accumulator cell), *nowhere* does Dewhurst disclose or even suggest the feature of a ***digital signal processor*** to ***both*** control a storage device ***and*** decompress the compressed media data. Additionally, as discussed previously, it is respectfully submitted that Dewhurst teaches away from a single processor that is programmed to perform two different functions at the same time.

Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

    c.   Since the Combination of Huang and Dewhurst Does Not Disclose or Suggest the Feature of the Feature of the Processor Comprising a Digital Signal Processor to Control the Storage Device and to Decompress the Media Data Stored in the Memory, as Recited in Dependent Claims 4, 5, 14, 31, 32 and 41 of the Present Application, the Combination of Huang and Dewhurst Does Not Render Dependent Claims 4, 5, 14, 31, 32 and 41 Obvious.

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a *digital signal processor* to *both* control a storage device *and* decompress the compressed media data, it is respectfully submitted that the combination of Huang and Dewhurst does not render dependent claim 4 unpatentable.

In addition, as discussed previously, it is respectfully submitted that the Patent Office has failed to provide support, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for the Patent Office's stated motivation. It is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to combine Huang and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the aforementioned reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of dependent claim 4 obvious.

Dependent claims 5, 14, 31, 32 and 41 recite features similar to those discussed above with regard to dependent claim 4, and are, therefore, patentably distinguishable over the combination of Huang and Dewhurst for at least those reasons stated above with regard to dependent claim 4.

Customer No.: 28285

For at least the foregoing reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of claims 4, 5, 14, 31, 32 and 41 unpatentable.

Hence, the subject matter of claims 4, 5, 14, 31, 32 and 41 is separately patentable for this reason.

Customer No.: 28285

3.   Claims 6, 15, 33 and 42.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of a digital signal processor that comprises a decoder to decompress the media data stored in the memory, as recited in dependent claims 6, 15, 33 and 42 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Comprises a Decoder to Decompress the Media Data Stored in the Memory, as Recited in Dependent Claims 6, 15, 33 and 42 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose or suggest the feature of a digital signal processor that comprises a decoder to decompress the media data stored in the memory, as recited in, for example, dependent claim 6 of the present application.

As discussed previously, Huang discloses that the *multimedia decoder* 228 "operates to decode the output of the error correction decoder 226 to produce *digital* audio signal and video signal." [Huang, column 5, lines 1-4 (emphasis added)] The multimedia decoder 228 is a separate, discrete component from the DSP 210.

Thus, it is respectfully submitted that Huang does *not* disclose that the DSP 210 performs any type of decompression of compressed media data.

-30-

b.   The Dewhurst Patent Does Not Disclose or Suggest the Feature
        of a Digital Signal Processor That Comprises a Decoder to
        Decompress the Media Data Stored in the Memory, as Recited
        in Dependent Claims 6, 15, 33 and 42 of the Present
        Application.

Contrary to the assertions of the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of a digital signal processor that comprises a decoder to decompress the media data stored in the memory, as recited in, for example, dependent claim 6 of the present application.

As discussed previously, Dewhurst discloses an FPGA in which the interconnections between the processing cells in the FPGA can be programmed as required so that the desired complex functions can be implemented. [*see* Dewhurst, page 3, paragraph 0055] Although each processing cell can be set up to perform a fixed arithmetic function, either multiplication (in a multiplier cell) or addition (in an accumulator cell), *nowhere* does Dewhurst disclose or even suggest the feature of a digital signal processor to decompress the media data stored in the memory.

Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

c.   Since the Combination of Huang and Dewhurst Does Not
        Disclose or Suggest the Feature of a Digital Signal Processor
        That Comprises a Decoder to Decompress the Media Data
        Stored in the Memory, as Recited in Dependent Claims 6, 15,
        33 and 42 of the Present Application, the Combination of
        Huang and Dewhurst Does Not Render Dependent Claims 6,
        15, 33 and 42 Obvious.

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a digital signal processor that comprises a decoder to decompress the media data stored in the memory, it is respectfully submitted that the combination of Huang and Dewhurst does not render dependent claim 6 unpatentable.

In addition, as discussed previously, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references

-31-

in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to combine Huang and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the aforementioned reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of dependent claim 6 obvious.

Dependent claims 15, 33 and 42 recite features similar to those discussed above with regard to dependent claim 6, and are, therefore, patentably distinguishable over the combination of Huang and Dewhurst for at least those reasons stated above with regard to dependent claim 4.

For at least the foregoing reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of claims 6, 15, 33 and 42 unpatentable.

Hence, the subject matter of claims 6, 15, 33 and 42 is separately patentable for this reason.

4.   Claims 7, 16, 34 and 43.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of a storage device that stores a process for decomposing compressed data for a selected compression format, as recited in dependent claims 7, 16, 34 and 43 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of a Storage Device that Stores a Process for Decomposing Compressed Data for a Selected Compression Format, as Recited in Dependent Claims 7, 16, 34 and 43 of the Present Application.

As acknowledged by the Patent Office, *nowhere* does Huang disclose or suggest the feature of a storage device that stores a process for decompressing compressed data for a selected compression format, as recited in, for example, dependent claim 7 of the present application. [*see* Final Office Action, page 6, lines 19-20]

b.   The Dewhurst Patent Does Not Disclose or Suggest the Feature of a Storage Device that Stores a Process for Decomposing Compressed Data for a Selected Compression Format, as Recited in Dependent Claims 7, 16, 34 and 43 of the Present Application.

As acknowledged by the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of a storage device that stores a process for decompressing compressed data for a selected compression format, as recited in, for example, dependent claim 7 of the present application. [*see* Final Office Action, page 6, lines 19-20] Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

-33-

     c.   Since the Combination of Huang and Dewhurst Does Not
Disclose or Suggest the Feature of a Storage Device that Stores
a Process for Decomposing Compressed Data for a Selected
Compression Format, as Recited in Dependent Claims 7, 16, 34
and 43 of the Present Application, the Combination of Huang
and Dewhurst Does Not Render Dependent Claims 7, 16, 34
and 43 Obvious.

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a storage device that stores a process for decompressing compressed data for a selected compression format, it is respectfully submitted that the combination of Huang and Dewhurst does not render dependent claim 7 unpatentable.

In addition, as discussed previously, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to combine Huang and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [see M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

In addition, Appellant notes that the Patent Office has taken Official Notice that "computer systems office include the necessary decoding software in memory. If the desired process is not already included, necessary decoding software can be retrieved from the disk for the computer to load the software to its system memory, as it is well known in the art that the decoding software may be accessed directly from the system's memory or retrievable from either the disk itself or even downloaded from the internet." [Final Office Action, page 6, line 21 – page 7, line 4] Appellant respectfully traverses the assertion of Official Notice.

According to M.P.E.P. § 2144.03, "[t]he examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art." In other words, official notice may be taken "[i]f the knowledge [outside of the record] is of . . . notorious character." [M.P.E.P. § 2144.03] Furthermore, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his

-34-

or her position." [M.P.E.P. § 2144.03] Pursuant to M.P.E.P. § 2144.03, Appellant traverses the assertion of Official Notice and respectfully requests that the Patent Office cite a document which teaches the purportedly "instant and unquestionable" facts asserted by the Patent Office so that the Appellant has a full and fair opportunity to respond to the combination of documents.

For at least the aforementioned reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of dependent claim 7 obvious.

Dependent claims 16, 34 and 43 recite features similar to those discussed above with regard to dependent claim 7, and are, therefore, patentably distinguishable over the combination of Huang and Dewhurst for at least those reasons stated above with regard to dependent claim 7.

For at least the foregoing reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of claims 7, 16, 34 and 43 unpatentable.

Hence, the subject matter of claims 7, 16, 34 and 43 is separately patentable for this reason.

Customer No.: 28285

5.   Claims 8, 17, 35 and 44.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of a digital signal processor that determines a compression format of the media data stored in the memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, as recited in dependent claims 8, 17, 35 and 44 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Determines a Compression Format of the Media Data Stored in the Memory, Wherein the Process for Decompressing Compressed Data is Retrieved From the Storage Device in Accordance with the Determined Compression Format, as Recited in Dependent Claims 8, 17, 35 and 44 of the Present Application.

As acknowledged by the Patent Office, *nowhere* does Huang disclose or suggest the feature of retrieving a process for decompressing compressed data from a storage device in accordance with a determined compression format, as recited in, for example, dependent claim 8 of the present application. [*see* Final Office Action, page 7, lines 7-8]

In addition, it is respectfully submitted that *nowhere* does Huang disclose or even suggest the feature of a digital signal processor that determines a compression format of the media data stored in memory.

Customer No.: 28285

    b.   <u>The Dewhurst Patent Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Determines a Compression Format of the Media Data Stored in the Memory, Wherein the Process for Decompressing Compressed Data is Retrieved From the Storage Device in Accordance with the Determined Compression Format, as Recited in Dependent Claims 8, 17, 35 and 44 of the Present Application.</u>

As acknowledged by the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of retrieving a process for decompressing compressed data from a storage device in accordance with a determined compression format, as recited in, for example, dependent claim 8 of the present application. [*see* Final Office Action, page 7, lines 7-8]

In addition, it is respectfully submitted that *nowhere* does Dewhurst disclose or even suggest the feature of a digital signal processor that determines a compression format of the media data stored in memory.

Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

    c.   <u>Since the Combination of Huang and Dewhurst Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Determines a Compression Format of the Media Data Stored in the Memory, Wherein the Process for Decompressing Compressed Data is Retrieved From the Storage Device in Accordance with the Determined Compression Format, as Recited in Dependent Claims 8, 17, 35 and 44 of the Present Application, the Combination of Huang and Dewhurst Does Not Render Dependent Claims 8, 17, 35 and 44 Obvious.</u>

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a digital signal processor that determines a compression format of the media data stored in the memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, it is respectfully submitted that the combination of Huang and Dewhurst does not render dependent claim 8 unpatentable.

-37-

Customer No.: 28285

In addition, as discussed previously, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to combine Huang and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

In addition, Appellant notes that the Patent Office has taken Official Notice that "if [decoding software] is not available on the system, it would have been obvious for one of ordinary skill to have provided the other well known locations of decoding software, which include being retrieved from the disk's storage or from the Internet." [Final Office Action, page 7, lines 11-14]

Pursuant to M.P.E.P. § 2144.03, Appellant respectfully traverses the assertion of Official Notice and respectfully requests that the Patent Office cite a document which teaches the purportedly "instant and unquestionable" facts asserted by the Patent Office so that the Appellant has a full and fair opportunity to respond to the combination of documents.

For at least the aforementioned reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of dependent claim 8 obvious.

Dependent claims 17, 35 and 44 recite features similar to those discussed above with regard to dependent claim 8, and are, therefore, patentably distinguishable over the combination of Huang and Dewhurst for at least those reasons stated above with regard to dependent claim 8.

For at least the foregoing reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of claims 8, 17, 35 and 44 unpatentable.

Hence, the subject matter of claims 8, 17, 35 and 44 is separately patentable for this reason.

6.   Claims 10, 19, 37 and 46.

It is respectfully submitted that the combination of Huang and Dewhurst is improper. *Even if* the combination of Huang and Dewhurst was proper, it is respectfully submitted that Huang and Dewhurst, whether considered alone or in combination, do not disclose or suggest the feature of a digital signal processor that comprises an encoder to compress the received media data, as recited in dependent claims 10, 19, 37 and 46 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Comprises an Encoder to Compress the Received Media Data, as Recited in Dependent Claims 10, 19, 37 and 46 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose or suggest the feature of a digital signal processor that comprises an encoder to compress the received media data, as recited in, for example, dependent claim 10 of the present application.

Huang discloses that the *multimedia encoder* 202 "operates to provide compression of the digital audio and video signals." [Huang, column 3, lines 61-62] The multimedia encoder 202 is a separate, discrete component from the DSP 210.

Thus, it is respectfully submitted that Huang does *not* disclose that the DSP 210 performs any type of compression of media data.

b.   The Dewhurst Patent Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Comprises an Encoder to Compress the Received Media Data, as Recited in Dependent Claims 10, 19, 37 and 46 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Dewhurst disclose or suggest the feature of a digital signal processor that comprises an encoder to compress the received media data, as recited in, for example, dependent claim 10 of the present application.

Dewhurst discloses an FPGA in which the interconnections between the processing cells in the FPGA can be programmed as required so that the desired complex functions can be implemented. [*see* Dewhurst, page 3, paragraph 0055] Although each processing cell can be set up to perform a fixed arithmetic function, either multiplication (in a multiplier cell) or addition (in an accumulator cell), *nowhere* does Dewhurst disclose or even suggest the feature of a digital signal processor that comprises an encoder to compress received media data.

Consequently, Dewhurst does not address the above-identified deficiencies of Huang.

c.   Since the Combination of Huang and Dewhurst Does Not Disclose or Suggest the Feature of a Digital Signal Processor That Comprises an Encoder to Compress the Received Media Data, as Recited in Dependent Claims 10, 19, 37 and 46 of the Present Application, the Combination of Huang and Dewhurst Does Not Render Dependent Claims 10, 19, 37 and 46 Obvious.

Since Huang and Dewhurst, whether considered individually or in combination, do not disclose or suggest the feature of a digital signal processor that comprises an encoder to compress the received media data, it is respectfully submitted that the combination of Huang and Dewhurst does not render dependent claim 10 unpatentable.

In addition, as discussed previously, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to combine the references in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that

the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to combine Huang and Dewhurst for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the aforementioned reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of dependent claim 10 obvious.

Dependent claims 19, 37 and 46 recite features similar to those discussed above with regard to dependent claim 10, and are, therefore, patentably distinguishable over the combination of Huang and Dewhurst for at least those reasons stated above with regard to dependent claim 10.

For at least the foregoing reasons, it is respectfully submitted that the combination of Huang and Dewhurst does not render the subject matter of claims 10, 19, 37 and 46 unpatentable.

Hence, the subject matter of claims 10, 19, 37 and 46 is separately patentable for this reason.

Customer No.: 28285

C.   Rejection of Claims 20, 47 and 95 Under 35 U.S.C. § 102(e) as Allegedly
        Being Anticipated by Huang.

It is respectfully submitted that Huang does not disclose an *integrated circuit* to control a media player/recorder having a storage device having stored thereon compressed media data, a memory and an output circuit, wherein the integrated circuit comprises a digital signal processor (DSP) to control the storage device, a storage controller responsive to the digital signal processor, and a read channel responsive to the storage controller, wherein the digital signal processor transfers the compressed media data read by the read channel to the memory, wherein the digital signal processor comprises a decoder to decompress the media data stored in the memory, and wherein the digital signal processor converts the media data decompressed by the decoder to an analog signal, as recited in independent claims 20, 47 and 95 of the present application.

1.   The Huang Patent Does Not Disclose an Integrated Circuit to Control a
        Media Player/Recorder, Comprising a Digital Signal Processor, a
        Storage Controller and a Read Channel, as Recited in Independent
        Claims 20, 47 and 95.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose an integrated circuit to control a media player/recorder, in which the integrated circuit comprises a digital signal processor (DSP), a storage controller and a read channel, as recited in, for example, independent claim 20 of the present application.

Huang discloses a DVD audio decoder comprised of multiple, separate, discrete components. [*see* Huang, column 7, line 3 – column 9, line 24 and Figure 5] It is respectfully noted that the Patent Office acknowledges that Huang discloses that the DVD audio decoder includes "*discrete* hardware elements . . . ."[*see* Final Office Action, page 3, line 13 (emphasis added)] Furthermore, the Patent Office has utterly and completely failed to cite or even attempt to point out where Huang discloses an integrated circuit as recited in, for example, independent claim 20. It is respectfully noted that the present Final Office Action is

-42-

completely silent as to where Huang discloses such an integrated circuit. [*see* Final Office Action, page 3, line 11 – page 4, line 6]

In response to Appellant's arguments filed September 24, 2004, the Patent Office has asserted that the recitation of a single integrated circuit is not to be given patentable weight, because the recitation occurs in the preamble, citing *In re Hirao*, 190 U.S.P.Q. 15 (C.C.P.A. 1976) and *Kropa v. Robie*, 88 U.S.P.Q. 478, 481 (C.C.P.A. 1951). It is respectfully submitted that the Patent Office is misapplying and misconstruing the pertinent case law.

According to M.P.E.P. § 2111.02, "[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation." It is respectfully noted that the recitation of an "integrated circuit" in the preamble of each of independent claims 20, 47 and 95 recites *structure*. Therefore, it is respectfully submitted that the Patent Office's reliance on *In re Hirao* and *Kropa v Robie* is improper and unfounded. Accordingly, it is respectfully submitted that the Patent Office's failure to consider the recitation of a single integrated circuit in the preamble evinces a clear misunderstanding and misapplication of the tenets of the patent laws and established case law.

It is a fundamental tenet of the patent laws regarding anticipation that "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." [M.P.E.P. § 2131 (citations omitted) (emphasis added)] More particularly, "[t]he elements [in the reference] must be arranged as required by the claim . . . ." [M.P.E.P. § 2131 (citations omitted)] It is respectfully submitted that the Patent Office is casually ignoring the features recited in independent claim 20 at its discretion in an attempt to anticipate the claims of the present application. As discussed previously, Huang does not disclose an "identical" invention as is recited in independent claim 20. In particular, Huang does not disclose an *integrated circuit* to control a media player/recorder, including elements that are arranged as recited in independent claim 20. A tortured and contorted interpretation of the features recited in independent claim 20 and tortured and contorted readings of Huang and the case law cannot replace the mandates and requirements of the patent laws regarding anticipation. It is respectfully submitted that the Patent Office has utterly failed to meet the established requirements of anticipation with respect to independent claim 20.

2. The Huang Patent Does Not Disclose the Feature of a Single Digital Signal Processor That Both Transfers Compressed Media Data and Decompresses the Compressed Media Data, as Recited in Independent Claims 20, 47 and 95.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose the feature of a *digital signal processor* to control the storage device, in which the digital signal processor transfers the compressed media data read by the read channel to the memory, in which the digital signal processor comprises a decoder to decompress the media data stored in the memory, *and* in which the digital signal processor converts the media data decompressed by the decoder to an analog signal, as recited in, for example, independent claim 20 of the present application.

Huang discloses that DSP 210 serves multiple functions, including "filtering operations for write and read signals, and it acts as a controller for the read/write components of the system." [Huang, column 4, lines 46-28] Additionally, the DSP 210 "controls the drive motors 214 and the record head 218 via the power amplifier 212 to record the modulated signal on the multimedia disk 216." [Huang, column 4, lines 55-57] The DSP 210 "also controls the drive motors 214 and uses the read head 220 to scan the multimedia disk 216 and produce a read signal." [Huang, column 4, lines 57-60] It is respectfully submitted that *nowhere* does Huang disclose a *digital signal processor* that *both* transfers compressed media data read by the read channel to a memory *and* decompresses the media data stored in the memory.

In both the functional block diagram illustrated in Figure 2, including *separate* Media Decoder 228 and DSP 210, and the embodiment illustrated in Figure 3, including *separate* decoder 314/316, controller 302, and SPU 312, Huang discloses multiple, separate discrete devices for performing retrieval and decompressing operations. Huang further discloses that the *multimedia decoder* 228 "operates to decode the output of the error correction decoder 226 to produce *digital* audio signal and video signal." [Huang, column 5, lines 1-4 (emphasis added)]

Thus, it is respectfully submitted that Huang does *not* disclose that the DSP 210 performs any type of decompression of compressed media data.

-44-

It is also further noted that the output of the *multimedia decoder* 228 is *digital* audio and video signals. As recited in, for example, independent claim 20, it is respectfully noted that the digital signal processor converts the decompressed media data to an *analog* signal.

It is further respectfully submitted that the Patent Office is mischaracterizing the teachings of Huang. In particular, the Patent Office asserts that the discrete hardware elements of 202, 204, 206, 208, 210, 220, 222, 224, 226, 228 and 230 disclose a "processor." The Patent Office then attempts to equate such a "processor" with the digital signal processor recited in, for example, independent claim 20. Contrary to the assertions of the Patent Office, such discrete hardware elements comprise a video recording and playback device 102. [*see* Huang, column 3, lines 26-28] Although Huang clearly discloses a DSP 210 which forms a discrete, separate component of the video recording and playback device 102, it is respectfully submitted that the Patent Office is simply ignoring such a disclosure. As noted previously, a tortured and contorted interpretation of the features recited in independent claim 20 and a tortured and contorted reading of Huang cannot replace the mandates and requirements of the patent laws regarding anticipation.

3.   Since the Huang Patent Does Not Disclose Numerous Features of the Present Invention, as Recited in Independent Claims 20, 47 and 95 of the Present Application, Huang Does Not Anticipate Independent Claims 20, 47 and 95.

Since Huang does not disclose an integrated circuit to control a media player/recorder, in which the integrated circuit comprises a digital signal processor, a storage controller and a read channel, and does not disclose an integrated circuit that includes digital signal processor to control the storage device, in which the *digital signal processor* transfers the compressed media data read by the read channel to the memory, in which the digital signal processor comprises a decoder to decompress the media data stored in the memory, *and* in which the digital signal processor converts the media data decompressed by the decoder to an analog signal, it is respectfully submitted that Huang does not anticipate the subject matter of independent claim 20.

Customer No.: 28285

Independent claims 47 and 95 recite features similar to those discussed above with regard to independent claim 1, and are, therefore, patentably distinguishable over Huang for at least those reasons stated above with regard to independent claim 1.

For at least the foregoing reasons, it is respectfully submitted that Huang does not anticipate the subject matter of independent claims 20, 47 and 95.

D.   Rejection of Claims 21-23, 25, 26, 48, 96, 103-105 and 169-172 Under 35
      U.S.C. § 103(a) as Allegedly Being Unpatentable over Huang.

1.   Claims 21, 25, 48, 96 and 103.

It is respectfully submitted that Huang does not disclose or suggest the features of a storage device that stores a process for decompressing compressed data for a selected compression format, wherein the digital signal processor determines a compression format of the media data stored in the memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and wherein the decoder decompresses the media data in accordance with the retrieved process, as recited in dependent claims 21, 25, 48 and 96 of the present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of
      a Storage Device That Stores a Process for Decompressing
      Compressed Data for a Selected Compression Format, Wherein
      the Digital Signal Processor Determines a Compression Format
      of the Media Data Stored in the Memory, Wherein the Process
      for Decompressing Compressed Data is Retrieved From the
      Storage Device in Accordance With the Determined
      Compression Format, and Wherein the Decoder Decompresses
      the Media Data in Accordance With the Retrieved Process, as
      Recited in Dependent Claims 21, 25, 48 and 96 of the Present
      Application.

As acknowledged by the Patent Office, *nowhere* does Huang disclose or suggest the feature of storing a process for decompressing the compressed data or retrieving a process for decompressing compressed data from a storage device in accordance with a determined compression format, as recited in, for example, dependent claim 21 of the present application. [*see* Final Office Action, page 9, lines 1-3]

In addition, it is respectfully submitted that *nowhere* does Huang disclose or even suggest the feature of a digital signal processor that determines a compression format of the

-47-

media data stored in memory, or a decoder that decompresses the media data in accordance with the retrieved process.

> b. Since the Huang Patent Does Not Disclose or Suggest the Feature of a Storage Device That Stores a Process for Decompressing Compressed Data for a Selected Compression Format, Wherein the Digital Signal Processor Determines a Compression Format of the Media Data Stored in the Memory, Wherein the Process for Decompressing Compressed Data is Retrieved From the Storage Device in Accordance With the Determined Compression Format, and Wherein the Decoder Decompresses the Media Data in Accordance With the Retrieved Process, as Recited in Dependent Claims 21, 25, 48 and 96 of the Present Application, the Huang Patent Does Not Render Dependent Claims 21, 25, 48 and 96 Obvious.

Since Huang does not disclose or suggest the features of a storage device that stores a process for decompressing compressed data for a selected compression format, wherein the digital signal processor determines a compression format of the media data stored in the memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and wherein the decoder decompresses the media data in accordance with the retrieved process, it is respectfully submitted that Huang does not render dependent claim 21 unpatentable.

In addition, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to modify the reference in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to modify Huang for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

In addition, Appellant notes that the Patent Office has taken Official Notice that "computer systems often include the necessary decoding software in memory. If the desired process is not already included, necessary decoding software can be retrieved directly from

-48-

the disk for the computer to load the software to its system memory, as it is well known in the art that the decoding software may be accessed directly from the system's memory or retrievable from either the disk itself or even downloaded from the Internet." [Final Office Action, page 9, lines 3-8] The Patent Office has also taken Official Notice that "if [the decoding software] is not available on the system, it would be obvious for one of ordinary skill to have provided the other well known locations of decoding software, which include being retrieved from the disk's storage or from the Internet." [Final Office Action, page 9, lines 15-18]

Pursuant to M.P.E.P. § 2144.03, Appellant respectfully traverses these assertions of Official Notice and respectfully requests that the Patent Office cite a document which teaches the purportedly "instant and unquestionable" facts asserted by the Patent Office so that the Appellant has a full and fair opportunity to respond to the combination of documents.

For at least the aforementioned reasons, it is respectfully submitted that Huang does not render the subject matter of dependent claim 21 obvious.

Dependent claims 25, 48 and 96 recite features similar to those discussed above with regard to dependent claim 21, and are, therefore, patentably distinguishable over Huang for at least those reasons stated above with regard to dependent claim 21.

Dependent claims 21 and 103 depend from independent claim 20, and are, therefore, also patentably distinguishable over Huang for at least those reasons stated above with regard to independent claim 20.

For at least the foregoing reasons, it is respectfully submitted that Huang does not render the subject matter of claims 21, 25, 48, 96 and 103 unpatentable.

Hence, the subject matter of claims 21, 25, 48, 96 and 103 is separately patentable for this reason.

Customer No.: 28285

2. Claims 22, 23, 26, 104 and 105.

It is respectfully submitted that Huang does not disclose or suggest the feature of a *single* circuit that is used to retrieve compressed media data stored on a storage device and to decompress the compressed media data, as recited in independent claim 22 of the present application.

a. The Huang Patent Does Not Disclose or Suggest the Feature of a Circuit that is Used to Retrieve Compressed Media Data Stored on a Storage Device and to Decompress the Compressed Media Data, as Recited in Independent Claim 22 of the Present Application.

Contrary to the assertions of the Patent Office, *nowhere* does Huang disclose the feature of a *single* circuit that is used to *both* retrieve compressed media data stored on a storage device *and* decompress the compressed media data, as recited in, for example, independent claim 22 of the present application.

As discussed previously, Huang discloses that DSP 210 serves multiple functions, including "filtering operations for write and read signals, and it acts as a controller for the read/write components of the system." [Huang, column 4, lines 46-28] Additionally, the DSP 210 "controls the drive motors 214 and the record head 218 via the power amplifier 212 to record the modulated signal on the multimedia disk 216." [Huang, column 4, lines 55-57] The DSP 210 "also controls the drive motors 214 and uses the read head 220 to scan the multimedia disk 216 and produce a read signal." [Huang, column 4, lines 57-60] It is respectfully submitted that *nowhere* does Huang disclose a *single* circuit that *both* retrieves compressed media data stored on a storage device *and* decompresses the compressed media data.

In both the functional block diagram illustrated in Figure 2, including *separate* Media Decoder 228 and DSP 210, and the embodiment illustrated in Figure 3, including *separate* decoder 314/316, controller 302, and SPU 312, Huang discloses multiple, separate discrete devices for performing retrieval and decompressing operations. Huang further discloses that

-50-

the *multimedia decoder* 228 "operates to decode the output of the error correction decoder 226 to produce digital audio signal and video signal." [Huang, column 5, lines 1-4] The multimedia decoder 229 is a separate, discrete component from the DSP 210.

Thus, it is respectfully submitted that Huang does *not* disclose that the DSP 210 performs any type of decompression of compressed media data.

> b. Since the Huang Patent Does Not Disclose or Suggest the Feature of a Circuit that is Used to Retrieve Compressed Media Data Stored on a Storage Device and to Decompress the Compressed Media Data, as Recited in Independent Claim 22 of the Present Application, the Huang Patent Does Not Render Independent Claim 22 Obvious.

Since Huang does not disclose or suggest the features of a *single* circuit that is used to *both* retrieve compressed media data stored on a storage device *and* decompress the compressed media data, it is respectfully submitted that Huang does not render independent claim 22 unpatentable.

In addition, as discussed previously, it is respectfully submitted that there is no teaching, suggestion or motivation, either explicitly or implicitly, to modify Huang in the manner suggested by the Patent Office. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to modify Huang for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the aforementioned reasons, it is respectfully submitted that Huang does not render the subject matter of independent claim 22 obvious.

Dependent claims 23, 26, 104 and 105 depend from independent claim 22, and are, therefore, patentably distinguishable over Huang for at least those reasons stated above with regard to independent claim 22.

For at least the foregoing reasons, it is respectfully submitted that Huang does not render the subject matter of claims 22, 23, 26, 104 and 105 unpatentable.

-51-

Hence, the subject matter of claims 22, 23, 26, 104 and 105 is separately patentable for this reason.

3.   Claims 169-172.

It is respectfully submitted that Huang does not disclose or suggest the feature of a

processor to transfer first portions of at least one of the plurality of selections of the media

data from the storage device to the memory, as recited in independent claims 169-172 of the

present application.

a.   The Huang Patent Does Not Disclose or Suggest the Feature of
        a Processor to Transfer First Portions of at Least One of the
        Plurality of Selections of the Media Data from the Storage
        Device to the Memory, as Recited in Independent Claims 169-
        172 of the Present Application.

As acknowledged by the Patent Office, *nowhere* does Huang disclose or suggest the

feature of a processor to transfer first portions of at least one of the plurality of selections of

the media data from the storage device to the memory, as recited in, for example,

independent claim 169 of the present application. [*see* Final Office Action, page 11, lines 15-

16]

b.   Since the Huang Patent Does Not Disclose or Suggest the
        Feature of a Processor to Transfer First Portions of at Least
        One of the Plurality of Selections of the Media Data from the
        Storage Device to the Memory, as Recited in Independent
        Claim 22 of the Present Application, the Huang Patent Does
        Not Render Independent Claims 169-172 Obvious.

Since Huang does not disclose or suggest the feature of a processor to transfer first

portions of at least one of the plurality of selections of the media data from the storage device

to the memory, it is respectfully submitted that Huang does not render independent claim 169

unpatentable.

In addition, as discussed previously, it is respectfully submitted that there is no

teaching, suggestion or motivation, either explicitly or implicitly, to modify Huang in the

manner suggested by the Patent Office. Consequently, it is respectfully submitted that the

-53-

Patent Office has not established a prima facie case of obviousness. Rather, it is respectfully submitted that the Patent Office's attempt to modify Huang for its rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

In addition, Appellant notes that the Patent Office has taken Official Notice that "it would have been obvious for one of ordinary skill in the art to transfer any amount of data desired to the memory. For example, the user could transfer into memory the contents of the entire disk or of just one or two songs if so desired for output to the listener wherein the user could continue to transfer more for example, one more song or the remaining contents of the disk." [Final Office Action, page 11, lines 16-21]

Pursuant to M.P.E.P. § 2144.03, Appellant respectfully traverses this assertion of Official Notice and respectfully requests that the Patent Office cite a document which teaches the purportedly "instant and unquestionable" facts asserted by the Patent Office so that the Appellant has a full and fair opportunity to respond to the combination of documents.

For at least the aforementioned reasons, it is respectfully submitted that Huang does not render the subject matter of independent claim 169 obvious.

Independent claims 170-172 recite features similar to those discussed above with regard to independent claim 169, and are, therefore, patentably distinguishable over Huang for at least those reasons stated above with regard to independent claim 169.

For at least the foregoing reasons, it is respectfully submitted that Huang does not render the subject matter of claims 169-172 unpatentable.

Hence, the subject matter of claims 169-172 is separately patentable for this reason.

Customer No.: 28285

VIII.   Conclusion

For the reasons presented above, the rejections of the claims are not properly founded in the statute and should be reversed.

Respectfully submitted,

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APPENDIX

The Appealed Claims

1.   A media player/recorder comprising:

a storage device to store compressed media data;

a programmable processor which is programmed to retrieve the media data stored in said storage device;

a memory to store the media data retrieved by said processor,

    wherein said processor is also programmed to decompress the media data stored in said memory; and

an output circuit to output the decompressed media data from said processor.

2.   A media player/recorder according to claim 1, wherein said memory comprises a dynamic access memory.

3.   A media player according to claim 1, further comprising an interface responsive to said processor to communicate with an external device.

4.   A media player according to claim 1, wherein said processor comprises a digital signal processor to control said storage device and to decompress the media data stored in said memory.

Customer No.: 28285

5. A media player according to claim 1, wherein said processor comprises a single integrated circuit comprising:

a digital signal processor to control said storage device and to decompress the media data stored in said memory;

a storage controller responsive to said digital signal processor; and

a read channel to read data from said storage device and responsive to said storage controller.

6. A media player according to claim 4, wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory.

7. A media player according to claim 6, wherein said storage device stores a process for decompressing compressed data for a selected compression format.

8. A media player according to claim 7, wherein said digital signal processor determines a compression format of the media data stored in said memory,

wherein the process for decompressing compressed data is retrieved from said storage device in accordance with the determined compression format, and

wherein said decoder decompresses the media data in accordance with the retrieved process.

9.   A media player according to claim 3, wherein the media data is transferred from the external device through said interface for storage on said storage device.

10.   A media player according to claim 4, further comprising an input circuit to receive media data,

wherein said digital signal processor comprises an encoder to compress the received media data, and

wherein the compress media data received by said input circuit is stored on said storage device.

11.   A media player/recorder comprising:

a storage device to store compressed media data;

a programmable processor which is programmed to retrieve the media data stored in said storage device;

wherein said processor decompresses the media data stored in said storage device; and

an output circuit to output the decompressed media data from said processor,

wherein said processor comprises a digital signal processor, and used the same circuit to control said storage device and to decompress the media data stored in said memory.

-iii-

12.   A media player/recorder according to claim 11, wherein said memory comprises a dynamic access memory.

13.   A media player according to claim 11, further comprising an interface responsive to said processor to communicate with an external device.

14.   A media player according to claim 11, wherein said processor comprises a single integrated circuit comprising:

a digital signal processor to control said storage device and to decompress the media data stored in said memory;

a storage controller responsive to said digital signal processor; and

a read channel to read data from said storage device and responsive to said storage controller.

15.   A media player according to claim 11, wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory.

16.   A media player according to claim 15, wherein said storage device stores a process for decompressing compressed data for a selected compression format.

-iv-

17.   A media player according to claim 16, wherein said digital signal processor determines a compression format of the media data stored in said memory,

wherein the process for decompressing compressed data is retrieved from said storage device in accordance with the determined compression format, and

wherein said decoder decompresses the media data in accordance with the retrieved process.

18.   A media player according to claim 13, wherein the media data is transferred from the external device through said interface for storage on said storage device.

19.   A media player according to claim 11, further comprising an input circuit to receive media data,

wherein said digital signal processor comprises an encoder to compress the received media data, and

wherein the compress media data received by said input circuit is stored on said storage device.

20.   An integrated circuit to control a media player/recorder having a storage device having stored thereon compressed media data, a memory and an output circuit, said integrated circuit comprising:

a digital signal processor to control the storage device;

-v-

a storage controller responsive to said digital signal processor; and

a read channel responsive to said storage controller to read the compressed media data from the storage device,

wherein said digital signal processor transfers the compressed media data read by said read channel to the memory,

wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory; and

wherein said digital signal processor converts the media data decompressed by said decoder to an analog signal.

21.   A media player according to claim 20,

wherein the storage device stores a process for decompressing compressed data for a selected compression format,

wherein said digital signal processor determines a compression format of the media data stored in the memory,

wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and

wherein said decoder decompresses the media data in accordance with the retrieved process.

22.   A method of playing and recording media data from a media player/recorder,

said method comprising the steps of:

a. storing compressed media data on a storage device;

b. using a circuit to retrieve the compressed media data stored on the storage device;

c. transferring the compressed media data retrieved in step b to a memory;

d. using the same circuit used for said retrieves to decompress the compressed media data transferred in step c; and

e. outputting the decompressed media data.

23. A method of claim 22, wherein step a comprises the step of communication with an external device.

25. A method of claim 22, further comprising the steps of:

f. storing a process for decompressing compressed data for a selected compression format;

g. determining a compression format of the media data transferred in step c;

h. retrieving the selected compression format stored in step f; and

i. decompressing the compressed media data transferred in step c in accordance with the retrieved selected compression format in step h.

26.   A method of claim 22 further comprising the steps of:

j.   inputting a signal;

k.   compressing the signal input in step j; and

l.   storing the compressed signal from step k on the storage device.

28.   A media player/recorder comprising:

storage means for storing compressed media data;

programmable processing means programmed for retrieving the media data stored in said storage means;

memory means for storing the media data retrieved by said processing means,

        wherein said processing means is also programmed for decompressing the media data stored in said memory means; and

output means for outputting the decompressed media data from said processing means.

29.   A media player/recorder according to claim 28, wherein said memory means comprises a dynamic access memory means.

30.   A media player according to claim 28, further comprising interface means responsive to said processing means for communicating with an external device.

31.   A media player according to claim 28, wherein said processing means comprises digital signal processing means for controlling said storage means and for decompressing the media data stored in said memory means.

32.   A media player according to claim 28, wherein said processing means comprises a single integrated circuit comprising:

digital signal processing means for controlling said storage means and for decompressing the media data stored in said memory means;

storage controller means responsive to said digital signal processing means for controlling said storage means; and

read channel means for reading data from said storage means and responsive to said storage controller means.

33.   A media player according to claim 31, wherein said digital signal processing means comprises a decoding means for decompressing the media data stored in said memory means.

34.   A media player according to claim 33, wherein said storage means stores a process for decompressing compressed data for a selected compression format.

35.   A media player according to claim 34, wherein said digital signal processing means determines a compression format of the media data stored in said memory means,

wherein the process for decompressing compressed data is retrieved from said storage means in accordance with the determined compression format, and

wherein said decoding means decompresses the media data in accordance with the retrieved process.

36.   A media player according to claim 30, wherein the media data is transferred from the external device through said interface means for storage on said storage means.

37.   A media player according to claim 31, further comprising input means for receiving media data,

wherein said digital signal processing means comprises encoding means for compressing the received media data, and

wherein the compress media data received by said input means is stored on said storage means.

38.   A media player/recorder comprising:

storage means for storing compressed media data;

processing means for retrieving the media data stored in said storage means;

wherein said processing means decompresses the media data stored in said

-X-

storage means; and

output means for outputting the decompressed media data from said processing means,

wherein said processing means comprises a digital signal processing means and uses the same circuit for controlling said storage means and for decompressing the media data stored in said memory means.

39. A media player/recorder according to claim 38, wherein said memory means comprises a dynamic access memory means.

40. A media player according to claim 38, further comprising an interface means responsive to said processing means for communicating with an external device.

41. A media player according to claim 38, wherein said processing means comprises a single integrated circuit comprising:

digital signal processing means for controlling said storage means and for decompressing the media data stored in said memory means;

storage controller means responsive to said digital signal processing means for controlling said storage device; and

read channel means for reading data from said storage means and responsive to said storage controller means.

42.   A media player according to claim 38, wherein said digital signal processing means comprises decoding means for decompressing the media data stored in said memory means.

43.   A media player according to claim 42, wherein said storage means stores a process for decompressing compressed data for a selected compression format.

44.   A media player according to claim 43, wherein said digital signal processing means determines a compression format of the media data stored in said memory means,

wherein the process for decompressing compressed data is retrieved from said storage means in accordance with the determined compression format, and

wherein said decoding means decompresses the media data in accordance with the retrieved process.

45.   A media player according to claim 40, wherein the media data is transferred from the external device through said interface means for storage on said storage means.

46.   A media player according to claim 38, further comprising input means for receiving media data,

wherein said digital signal processing means comprises encoding means for

-xii-

compressing the received media data, and

wherein the compress media data received by said input means is stored on said storage means.

47.   An integrated circuit for controlling a media player/recorder having storage means having stored thereon compressed media data, memory means and output means, said integrated circuit comprising:

digital signal processing means for controlling the storage means;

storage controller means responsive to said digital signal processing means; and

read channel means responsive to said storage controller means for reading the compressed media data from the storage means,

wherein said digital signal processing means transfers the compressed media data read by said read channel means to the memory means,

wherein said digital signal processing means comprises a decoding means for decompressing the media data stored in said memory means; and

wherein said digital signal processing means converts the media data decompressed by said decoding means to an analog signal.

48.   A media player according to claim 47,

wherein the storage means stores a process for decompressing compressed data for a selected compression format,

-xiii-

wherein said digital signal processing means determines a compression format of the media data stored in the memory means,

wherein the process for decompressing compressed data is retrieved from the storage means in accordance with the determined compression format, and

wherein said decoding means decompresses the media data in accordance with the retrieved process.

95.   An integrated circuit for controlling a media player/recorder having storage means having stored thereon compressed media data, memory means and output means, said integrated circuit comprising:

digital signal processing means for controlling the storage means;

storage controller means responsive to said digital signal processing means; and

read channel means responsive to said storage controller means for reading the compressed media data from the storage means,

wherein said digital signal processing means transfers the compressed media data read by said read channel means to the memory means,

wherein said digital signal processing means comprises a decoding means for decompressing the media data stored in said memory means; and

wherein said digital signal processing means converts the media data decompressed by said decoding means to an analog signal.

96.   A integrated circuit according to claim 95,

wherein the storage means stores a process for decompressing compressed data for a selected compression format,

wherein said digital signal processing means determines a compression format of the media data stored in the memory means,

wherein the process for decompressing compressed data is retrieved from the storage means in accordance with the determined compression format, and

wherein said decoding means decompresses the media data in accordance with the retrieved process.

97.   A media player/recorder according to claim 1, wherein said storage device comprises a hard disk.

98.   A media player/recorder according to claim 1, wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

99.   A media player/recorder according to claim 5, wherein said storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

100.   A media player/recorder according to claim 11, wherein said storage device comprises a hard disk.

101.   A media player/recorder according to claim 11, wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

102.   A media player/recorder according to claim 14, wherein said storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

103.   An integrated circuit according to claim 20, wherein the storage device comprises a hard disk, and

wherein said storage controller comprises a hard disk controller.

104.   A method according to claim 22, wherein the storage device comprises a hard disk.

105.   A method according to claim 22, wherein the storage device is selected from the group consisting of optical disk, magnetic disk, CD ROM, CDR, and CDRW.

106.   A media player/recorder according to claim 28, wherein said storage means comprises hard disk means.

107.   A media player/recorder according to claim 28, wherein said storage means is selected from the group consisting of optical storage means, magnetic storage means, CD ROM, CDR, and CDRW.

108.   A media player/recorder according to claim 32, wherein said storage means comprises hard disk means, and

wherein said storage controller means comprises hard disk controller means.

109.   A media player/recorder according to claim 38, wherein said storage means comprises hard disk means.

110.   A media player/recorder according to claim 38, wherein said storage means is selected from the group consisting of optical storage means, magnetic storage means, CD ROM, CDR, and CDRW.

111.   A media player/recorder according to claim 41, wherein said storage means comprises hard disk means, and wherein said storage controller means comprises hard disk controller means.

112. An integrated circuit according to claim 47, wherein the storage means comprises hard disk means, and

wherein said storage controller means comprises hard disk controller means.

169. A media player/recorder comprising:

a storage device to store media data, the media data comprising a plurality of selections;

a memory;

a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory;

an output device,

wherein said output device outputs the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections.

170. A media player/recorder comprising:

storage means for storing media data, the media data comprising a plurality of

-xviii-

selections;

memory means for storing data;

processing means for transferring first portions of at least one of the plurality of selections of the media data from said storage means to said memory means;

an output means for outputting the first portions of the at least one of the plurality of sections of the media data from said memory means,

wherein when a user selects a particular one of said plurality of selections, said processing means retrieves a remaining portion of the particular one of said plurality of selections and said output means outputs the portion and remaining portion the particular one of said plurality of selections.

171.   A method of playing and recording media data from a media player/recorder , said method comprising the steps of:

(a)   storing media data, the media data comprising a plurality of selections;

(b)   transferring first portions of at least one of the plurality of selections of the media data from step (a) to a means;

(c)   outputting the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting the portion and remaining portion the particular one of said plurality of

-xix-

selections.

172.   A computer program for playing and recording media data from a media player/recorder , said method comprising the steps of:

(a)   storing media data, the media data comprising a plurality of selections;

(b)   transferring first portions of at least one of the plurality of selections of the media data from step (a) to a means;

(c)   outputting the first portions of the at least one of the plurality of sections of the media data from the memory,

wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting the portion and remaining portion the particular one of said plurality of selections.
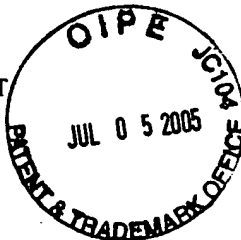
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,693	09/11/2000	Sehat Sutardja	MP0062	5047

23624 7590 02/23/2005	EXAMINER
MARVELL SEMICONDUCTOR, INC.	FLANDERS, ANDREW C
INTELLECTUAL PROPERTY DEPARTMENT	

ART UNIT	PAPER NUMBER
2644	

700 FIRST AVENUE, MS# 509
SUNNYVALE, CA 94089

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.
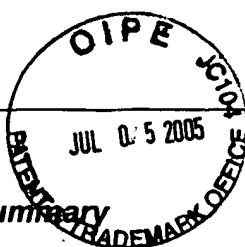
	Application No.	Applicant(s)
Office Action Summary	09/659,693	SUTARDJA, SEHAT
	Examiner	Art Unit	
	Andrew C Flanders	2644	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 September 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-48 and 95-172_ is/are pending in the application.

 4a) Of the above claim(s) _24, 27 and 113 - 168_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1 - 23, 25, 26, 28 - 48, 95 - 112 and 169 - 172_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _27 September 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _6/7/04_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Restriction to one of the following inventions is required under 35 U.S.C. 121:

I.   Claims 1 – 23, 25, 26, 28 – 48, 95 – 112, and 169 – 172 are drawn to a
media player with playback details, classified in class 700, subclass 94.

II.   Claims 24, 27 and 113 – 168 are drawn to a media player with power
saving techniques, classified in class 365, subclass 227.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in
this relationship are distinct if it can be shown that (1) the combination as claimed does
not require the particulars of the subcombination as claimed for patentability, and (2)
that the subcombination has utility by itself or in other combinations (MPEP §
806.05(c)). In the instant case, the combination as claimed does not require the
particulars of the subcombination as claimed because the media player will operate as
claimed without the power saving details. The subcombination has separate utility such
as power conservation in any data access system.

Because these inventions are distinct for the reasons given above and have
acquired a separate status in the art because of their recognized divergent subject
matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Scott Harris on 24 January 2005 a
provisional election was made without traverse to prosecute the invention of I, claims 1
– 23, 25, 26, 28 - 48, 95 – 112 and 169 - 172. Affirmation of this election must be made

| by applicant in replying to this Office action. Claims 24, 27 and 113 – 168 are

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn

to a non-elected invention.

Claim Rejections - 35 USC § 102

5   2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 20, 47 and 95 are rejected under 35 U.S.C. 102(e) as being anticipated

10   by Huang (U.S. 6,119,091.

Regarding claims 20, 47 and 95, Huang discloses a multimedia device that

includes a storage device 216 which stores compressed media data. Huang further

discloses a 'processor', which includes discrete hardware elements comprising of 202,

204, 206, 208, 210, 220, 222, 224, 226, 228 and 230 (see figure 2) wherein the

15   'processor' retrieves the media data stored on the storage device 216, via the read head

220 controlled by the DSP 210. Huang further discloses a memory 204 to store the data

retrieved by the 'processor'. Huang further discloses the a decoder 228 which is an

element included in the processor that decompresses the data stored in memory 204.

Huang further discloses an output circuit (outputs from the decoder 228) to output the

decompressed media from the 'processor'. Huang further discloses D/A converter 236

for converting the decompressed signal to an analog signal for output. Huang further

discloses the DSP 210 element acts as a controller for the read/write components of the

system (col. 4 lines 45 -47). Huang further discloses a read head 220, which reads on a

read channel to read the data from the storage device 216 which is responsive to the

controller 210 (see figure 2).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1 – 19, 28 – 46, 97 – 102, and 106 – 112 are rejected under 35 U.S.C.

103(a) as being unpatentable over Huang (U.S. Patent 6,119,019) in view of Dewhurst

(U.S. Patent Application Publication 2002/0019925).

Regarding claims 1, 11, 28, and 38, Huang et al. (hereinafter, "Huang")

discloses a multimedia device that includes a storage device 216 which stores

compressed media data. Huang further discloses a 'processor', which includes discrete

hardware elements comprising of 202, 206, 208, 210, 220, 222, 224, 226, 228 and 230

(see figure 2) wherein the 'processor' retrieves the media data stored on the storage

device 216, via the read head 220 controlled by the DSP 210. Huang further discloses a

memory 204 to store the data retrieved by the 'processor'. Huang further discloses the a

decoder 228 which is an element included in the processor that decompresses the data

stored in memory 204. Huang further discloses an output circuit (outputs from the

decoder 228) to output the decompressed media from the 'processor'. Regarding claims

2, 12, 29, 39, 50, 60, 77 and 87, Huang further discloses the memory 204 synchronous

dynamic random access memory (SDRAM) (col. 3 lines 3638). Regarding claims 3,13,

30, 40, 51, 61, 78 and 88, Huang further discloses the 'processor' receives input signals

from, for example, a television tuner or some other external device (col. 3 lines31 32),

wherein an interface for receiving signals between the 'processor and external

component is inherently taught shown by receiving inputs and outputs of audio and

video to the 'processor'. Huang does not disclose a programmable processor.

Dewhurst discloses FPGAs are now widely used to implement many digital functions

(paragraph 3). It would have been obvious to one of ordinary skill in the art at the time

of the invention to take Huang's discrete digital elements and implement them on an

FPGA as taught by Dewhurst. One would have been motivated to do so to make things

smaller and more compact.

Regarding claims 2, 12, 29 and 39, Huang further discloses the memory 204

synchronous dynamic random access memory (SDRAM) (col. 3 lines 36-38) .

Regarding claims 3,13, 30 and 40, Huang further discloses the 'processor'

receives input signals from, for example, a television tuner or some other external

device (col. 3 lines 31-32), wherein an interface for receiving signals between the

'processor and external component is inherently taught by receiving inputs and outputs

of audio and video to the 'processor'.

Regarding claims **4, 14, and 31**, Huang further discloses a 'processor, which includes discrete hardware elements comprising of 202, 204, 206, 208, 210, 220, 222, 224, 226, 228 and 230 (see figure 2) wherein the 'processor' controls the storage device 216; via the read head 220 controlled by the DSP 210 as well as decompresses the media, via decoder 228 which is stored in memory 204 and therefore reads on the claimed limitation.

Regarding claims **5, 32, and 41**, Huang further discloses a 'processor', which includes discrete hardware elements comprising of 202, 204, 206, 208, 210, 220, 222, 224, 226, 228 and 230 (see figure 2) wherein the 'processors controls the storage device 216, via the read head 220 controlled by the DSP 210 as well as decompresses the media, via decoder 228 which is stored in memory 204. Huang further discloses the DSP 210 element acts as a controller for the read/write components of the system (col. 4 lines 45 - 47). Huang further discloses a read head 220, which reads on a read channel to read the data from the storage device 216 which is responsive to the controller 210 (see figure 2).

Regarding claims, **6, 15, 33 and 42**, Huang further discloses a 'processor', which reads on a digital signal processor, decompresses the media data stored in memory 204 via the decoder 228 (see figure 2).

Regarding claims **7,16, 34 and 43**, Neither Huang nor Dewhurst disclose storing a process for decompressing the compressed data: However, Examiner takes official notice that computer systems often include the necessary decoding software in memory. If the desired process is not already included, necessary decoding software

can be retrieved directly from the disk for the computer to load the software to its

system memory, as it is well known in the art that the decoding software may be

accessed directly from the system's memory or retrievable from either the disk itself or

even downloaded from the internet. Therefore it would have been obvious for one of

ordinary skill in the art to provide the decoding software in the digital processor of

Huang for the purpose of being able to retrieve data from any of those locations.

Regarding claims 8, 17, 35 and 44, Neither Huange nor Dewhurst disclose

retrieving the process for decompressing: Huang discloses the 'processor' controls the

storage device 216, via the read head 220 controlled by the DSP 210 (col. 4 lines 46

67). Therefore, when the DSP determines the type of compression format necessary,

the software will be retrieved from the system's memory if available. However, examiner

takes official notice that If it is not available on the system, it would be obvious for one of

ordinary skill to have provided the other well known locations of decoding software,

which include being retrieved from the disk's storage or from the Internet. The DSP 210

then sends the information to the decoder 228 for necessary decompression.

Regarding claims 9, 18, 36 and 45, Huang further discloses the 'processor'

receives media data from, for example, a television tuner or some other external device

(col. 3 lines31- 32), Huang inherently teaches an interface since the media data is to be

transferred from the external device and to be stored on the storage device 216. An

interface must have been used for the transmission of a signal.

Regarding claims 10, 19, 37 and 46, Huang further discloses inputting the

signal into the 'processor' via the encoder 202 wherein the encoder provides

compression of the digital audio and video inputs (col. 3 lines 62- 63 and see figure 2).

Huang further discloses the compressed signals are stored on the storage device 216

(col. 4 lines 56- 58 and see figure 2).

Regarding claims 97, 100, 106 and 109, Huang further discloses the device

102 accepts multimedia discs in the drive 104 wherein the disc reads on the storage

device 216.

Regarding claims 98, 101, 107 and 110, Huang further discloses the

multimedia disk 216 which reads on the storage device and thus reads on all the

claimed limitations, which include an optical disk, magnetic disk, CD ROM, CDR and

CDRW).

Regarding claims 99, 102, 108 and 111, Huang further discloses the device

102 accepts multimedia discs in the drive 104 wherein the disc reads on the storage

device 216. Huang further discloses the DSP 210 element acts as a controller for the

read/write components of the system (col. 4 lines 45 47) and thus controls the storage

device/hard disk and therefore is a hard disk controller.

Regarding claims 112, Huang further discloses the device 102 accepts

multimedia discs in the drive 104 wherein the disc reads on the storage device 216.

Huang further discloses the DSP 210 element acts as a controller for the read/write

components of the system (col. 4 lines 45 -47) and thus controls the storage

device/hard disk and therefore is a hard disk controller.

6.   Claims 21 – 23, 25, 26, 48, 96, 103 – 105 and 169 – 170 are rejected under 35

U.S.C. 103(a) as being unpatentable over Huang (U.S. Patent 6,119,019).

Regarding claims 21, 48 and 96, Neither Huang nor Dewhurst disclose storing a process for decompressing the compressed data or retrieving the process for decompressing. However, examiner takes official notice that computer systems often include the necessary decoding software in memory. If the desired process is not already included, necessary decoding software can be retrieved directly from the disk for the computer to load the software to its system memory, as it is well known in the art that the decoding software may be accessed directly from the system's memory or retrievable from either the disk itself or even downloaded from the internet. Therefore it would have been obvious for one of ordinary skill in the art to provide the decoding software in the digital processor of huang for the purpose of being able to retrieve data from any of those locations.

Huang further discloses the `processor' controls the storage device 216, via the read head 220 controlled by the DSP 210 (col. 4 lines 46 67). Therefore, when the DSP determines the type of compression format necessary, the software will be retrieved from the system's memory if available. The Examiner takes official notice that If it is not available on the system, it would be obvious for one of ordinary skill to have provided the other well known locations of decoding software, which include being retrieved from the disk's storage or from the Internet. The DSP 210 then sends the information to the decoder 228 for necessary decompression.

Regarding claim 22, it is interpreted and thus rejected for the same reasons as set forth above in claim 1. Since claims 22 and 70 disclose a method, which corresponds to, the apparatus of claim 1; the method is obvious in that is simply

provides functionality for the structure of claim 1. Implementing these features on a single chip, as is obvious as shown in claim 1, allows the same circuit to retrieve and decompress.

Regarding claim 23, it is interpreted and thus rejected for the same reasons as set forth above in claim 3. Since claims 23 and 71 disclose a method, which corresponds to, the apparatus of claim 3; the method is obvious in that is simply provides functionality for the structure of claim 3.

Regarding claim 25, it is interpreted and thus rejected for the same reasons as set forth above in claim 8. Since claim 8 discloses a method, which corresponds to, the apparatus of claim 8; the method is obvious in that is simply provides functionality for the structure of claim 8.

Regarding claim 26, Huang discloses everything claimed as applied above (see claims 22 and 70). Huang further discloses inputting the signal into the 'processor' via the encoder 202 wherein the encoder provides compression of the digital audio and video inputs (col. 3 lines 62 63 and see figure 2)._ Huang further discloses the compressed signals are stored on the storage device 216 (Col. 4 lines 56 58 and see figure 2).

Regarding claims 103, Huang further discloses the device 102 accepts multimedia discs in the drive 104 wherein the disc reads on the storage device 216. Huang further discloses the DSP 210 element acts as a controller for the read/write components of the system (col. 4 lines 45 -47) and thus controls the storage device/hard disk and therefore is a hard disk controller.

Regarding claim 104, Huang further discloses the device 102 accepts

multimedia discs in the drive 104 wherein the disc reads on the storage device 216.

Regarding claim 105, Huang further discloses the multimedia disk 216 which

reads on the storage device and thus reads on all the claimed limitations, which include

an optical disk, magnetic disk, CD ROM, CDR and CDRW).

Regarding claims 169 - 172, Huang discloses a multimedia device that includes

a storage device 216 which stores compressed media data. Huang further discloses a

'processor', which includes discrete hardware elements comprising of 202, 204, 206,

208, 21.0, 220, 222, 224, 226, 228 and 230 (see figure 2) wherein the 'processor'

retrieves the media data stored on the storage device 216, via the read head 220

controlled by the DSP 210. Huang further discloses a memory 204 to store the data

retrieved by the processor. Huang further discloses a decoder 228, which is an element,

included in the processor that decompresses the data stored in memory 204. Huang

further discloses an output circuit (outputs from the decoder 228) to output the,

decompressed media from the 'processor'. Huang does not disclose transferring

portions of the selections. However examiner takes official notice that it would have

been obvious for one of ordinary skill in the art to transfer any amount of data desired to

the memory. For example, the user could transfer into memory the contents of the entire

disk or of just one or two songs if so desired for output to the listener wherein the user

could continue to transfer more for example, one more song or the remaining contents

of the disk.

Double Patenting

7.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d, 438, 164 USPQ 619 (CCPA 1970);and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8.   **Claims 1 - 23, 25, 26, 28 – 48 and 95 - 112** are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10 of copending Application No. 10/184,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

9.   **Claims 1 - 23, 25, 26, 28 – 48 and 95 - 112** are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 5, 20 - 23, 38 - 41, 56 - 59 and 74 - 85 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for

example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any

such portable media device as discussed above are well known to be connected and

have operation in a vehicle, even if it is merely to connect for power.

10.   **Claims 1 - 23, 25, 26, 28 – 48 and 95 - 112** are provisionally rejected under the

judicially created doctrine of obviousness type double patenting as being unpatentable

over claims 1 - 10, 26 - 34, 50 - 53, of copending Application No. 10/184,505. Although

the conflicting claims are not identical, they are not patentably distinct from each other

because the interface is inherently taught via input and output circuits are being applied

wherein data is being directed to and from the system. Various types of interfaces are

well known depending on port capabilities and necessities to the system environment.

This is a provisional obviousness type double patenting rejection because the

conflicting claims have not in fact been patented.

Response to Arguments

11.   Applicant's arguments filed 24 September 2004 have been fully considered but

they are not persuasive.

Applicant states the following:

> "Specifically, claim 1 has been amended to recite a programmable
> processor. That programmable processor is programmed to both receive
> media data, and also to decompress the media data. In this way, the
> some device: here the programmable processor does two different things.
> This compares with Huang which uses two separate devices for doing
> these two different functions. Because the prior art uses two different
> devices for doing these two different functions, the prior art would require
> more real estate on any substrate that holds the devices, as compared
> with1laim 1. Hence, an advantage of claim 1 is that of saving on substrate
> real estate."

1   Examiner has noted this argument and considers it moot in light of the new

rejection.

Applicant also states:

> "In addition, there may be time during operation when the system is
> not both reading and decoding at the same time. Therefore, this leads to
> the unexpected advantage that the same device can retrieve and decode
> without sacrificing performance to the extent that might be expected, and
> uses less energy than might otherwise be expected."

5   In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., the unexpected advantage that the same device can retrieve and decode without

sacrificing performance to the extent that might be expected and used less energy than

might otherwise be expected) are not recited in the rejected claim(s). Although the

10   claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed.

Cir. 1993).

Applicant also states:

> "Huang does not teach or suggest this feature. Huang teaches a
> D8P 210 which fetches the data, and a separate media decoder 228 that
> decodes the data. Another words, as discussed above, two separate
> devices are used to retrieve and decode the data in Huang."

15   Examiner has noted this argument and considers it moot in light of the new

rejection.

Applicant also states:

"Specifically, claim 5 specifies that processor which does all of these functions is on a single integrated circuit. Nowhere does Huang teach or suggest such a single integrated circuit."

In response to applicant's arguments, the recitation a single integrated circuit has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or <u>structural limitations are able to stand alone</u>. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Applicant also states:

"Claim 7 specifies that the storage device stores the process that carries out the decompression of the compressed data. This is again nowhere taught or suggested by the cited prior art. Moreover, this produces the advantage that a general-purpose media decoder can decompress any compressed data, since the decompression process is stored in the storage device."

Examiner has noted this argument and considers it moot. Examiner acknowledges the prior art does not explicitly disclose storing the processes that carries out the decompression of the compressed data. However as the rejection states, "computer systems often include the necessary decoding software in memory." Huang teaches of Multimedia decoder (listed in the rejections). It is obvious that this decoder operates on the data and decodes it according to a stored process.

Applicant also states:

> "Claim 8 specifies a determined decompression routine being stored on the disk, and retrieving that process based on a determined protocol. This is in no way taught or suggested by the cited prior part."

Examiner has noted this argument and considers it moot. As stated in the rejection, the DSP determines the type of compression format necessary. As is common within DVD players, various audio compression formats are present (i.e. AC3 or DTS) on many commercially available DVDs. As stated before it would have been obvious to one of ordinary skill in the art to provide the proper decoding software and thus the rejection stands.

Applicant also states:

> "Claim 11 specifies a programmable processor which is programmed to retrieve media data and is also programmed to decompress the media data. This structure, where the same programmable processor does both retrieve and decompress, is in no way taught or suggested by the prior art, and should be allowable."

Examiner has noted this argument and considers it moot in light of the new rejection.

Applicant also states:

> "Claim 20 specifies an integrated circuit to control and decode data from a storage device. This includes, as part of the integrated circuit, a digital signal processor for controlling the storage device, along with a storage controller, and that the digital signal processor includes a decoder that decompresses the media data that has been stored, and that all of this is all on one chip. This is in no way~ taught or suggested by Huang, and should hence be allowable."

In response to applicant's arguments, the recitation a single integrated circuit has not been given patentable weight because the recitation occurs in the preamble. A

(preamble is generally not accorded any patentable weight where it merely recites the

purpose of a process or the intended use of a structure, and where the body of the

claim does not depend on the preamble for completeness but, instead, the process

steps or <u>structural limitations are able to stand alone</u>. See *In re Hirao*, 535 F.2d 67, 190

5 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481

(CCPA 1951).

Applicant also states:

> "Claim 21 defines subject matter which is allowable for similar
> reasons to those discussed above with respect to claim 8."

Examiner has noted this argument and considers it moot for the same reasons

10 regarding the arguments pertaining to claim 8.

Applicant also states:

> "Claim 22 specifies that the same circuit is used for both the
> retrieving and the decompressing of media data, and hence claim 22
> should be allowable for similar reasons to those discussed above along
> with the claims that depend therefrom."

Examiner has noted this argument and considers it moot in light of the new

rejections.

15 Applicant also states:

> "Claim 25 defines stored in the process for decompressing
> compressed data, determining the compression format, and retrieving the
> compression format. This is in no way taught or suggested by the cited
> prior art, for the reasons stated above."

Examiner has noted this argument and considers it moot for the same reasons

regarding the arguments pertaining to claim 8.

Applicant also states:

> "Claim 28 defines a programmable processing means that is programmed for retrieving media data and also is programmed to decompress media data. This is in no way taught or suggested by the cited prior art, and should be allowable for similar reasons to those discussed above."

Examiner has noted this argument and considers it moot in light of the new rejections.

Applicant also states:

> "The dependent claims should also be allocable, with claim 32 defining a single integrated circuit"

Examiner has noted this argument and considers it moot for the same reasons regarding the arguments pertaining to claim 5.

Applicant also states:

> "Claim 34 defining that the storage means stores the process for decompressing"

Examiner has noted this argument and considers it moot for the same reasons regarding the arguments pertaining to claim 7.

Applicant also states:

> "Claim 35, for example, defining that a process is retrieved based on a determined compression format."

Examiner has noted this argument and considers it moot for the same reasons regarding the arguments pertaining to claim 8.

Applicant also states:

> "Claim 38 has been amended to recite that the processing means uses the same circuit for controlling the storage means and also for decompressing media data stored in the storage means. Therefore, claim 38 should be allowable along with the claims which depend therefrom."

I

Examiner has noted this argument and considers it moot in light of the new

rejections

Applicant also states:

> "Claim 41 specifies a single integrated circuit. Claims 43 and 44
> define Storing processes for decoding."

5

Examiner has noted this argument and considers it moot, Claim 41 for the

reasons regarding the arguments pertaining to claim 5, Claim 43 for the reasons

regarding the arguments pertaining to claim 7, and Claim 44 for the reasons regarding

the arguments pertaining to claim 8.

Applicant also states:

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> "Claim 47 specifies an integrated circuit and should hence be
>
> allowable along with claim 48 which depends therefrom, for at least the
>
> reasons discussed above"

Examiner has noted this argument and considers it moot, Claim 47 for the

reasons regarding the arguments pertaining to claim 5, Claim 48 for the reasons

regarding the arguments pertaining to claims 7 and 8.

Applicant also states:

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> "Claim 95 defines an integrated circuit which should be allowable
> for reasons discussed above."

Examiner has noted this argument and considers it moot for the reasons

regarding the arguments pertaining to claim 5.

Applicant also states:

"In addition, however, claim 95 defines that the digital signal processing means converts the signal into an analog signal, and should be additionally allowable."

Examiner has noted this argument and considers it moot. As stated in the

rejection, Huang discloses a D/A converter (i.e. a digital signal processing means that

converts the signal into an analog signal).

Applicant also states:

"The claims that depend from claim 95 should be additionally allowable. For example, claim 96 should be allowable for reasons discussed above with respect to claim 8."

Examiner has noted this argument and considers it moot for the reasons

regarding the arguments pertaining to claim 8.

Applicant also states:

"Independent claims 169 – 172 are directed to the user obtaining "first portions" of the media data, allowing the user to select, and then getting that selection. This enables a preview like function. (These claims do not recite a processor that both retrieves and decompresses the media data.) Huang does not teach this. This preview-like function is much more than merely 'transfers any amount of data', ass alleged by the rejection."
"The rejection states that Huang teaches and enables transferring 'any amount of data'. However, this is much more than simply enabling transfer of any amount of data. According to claim 169, the processor transfers first portions, and allows a user to select one of those selections, and enables the processor to retrieve the remaining portion of that selection. This is in no way taught or suggested by the cited prior art and should be allowable thereover. Claims 170, 171, and 172 define analogous limitations, and should also be allowable for similar reasons to those stated above."

Examiner has noted this argument and considers it moot. As stated in the

rejection "It would have been obvious for one of ordinary skill in the art to transfer any

amount of data desired to the memory. For example, the user could transfer into

memory the contents of the entire disk or of just one or two songs if so desired for

output to the listener wherein the user could continue to transfer more for example, one

more song or the remaining contents of the disk." Preview devices like this were well

known in the art at the time of the invention as stated in the obviousness claim. This is

further evidenced by such art as Stern (U.S. 6,553,404). As such the claims remain

rejected.

The rest of the arguments have been considered but are moot in light of the

restriction and election

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Bartley (U.S. 5,727,231), Tavana (U.S. 5,825,202), Chang (U.S.

5,687,325), and Faber (U.S. 3,878,514).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner states: The claims elected without traverse have either been rejected for a second time with new art due to amended limitations within the claim, or the previous rejections have stood on non-amended claims. Therefore, even in light of the restriction, no new grounds have been introduced and a Final Rejection is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Flanders whose telephone number is (703) 305-0381. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER